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Epitome

of the Pharmacopeia of the United States and the National Formulary

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Epitome

OF THE PHARMACOPEIA OF THE UNITED STATES AND THE NATIONAL FORMULARY WITH COMMENTS

Issued Under the Direction and Supervision of the Council on Pharmacy and Chemistry of the American Medical Association

EIGHTH EDITION

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THE USE IN THIS VOLUME OF CERTAIN PORTIONS OF THE TEXT OF THE PHARMACOPEIA OF THE UNITED STATES OF AMERICA THIRTEENTH REVISION IS BY VIRTUE OF PERMISSION RECEIVED FROM THE BOARD OF TRUSTEES OF THE UNITED STATES PHARMACOPEIAL CONVENTION. THE SAID BOARD OF TRUSTEES IS NOT RESPONSIBLE FOR ANY INACCURACY OF QUOTATIONS OR FOR ANY ERRORS IN THE STATEMENT OF QUANTITIES OR PERCENTAGE OF STRENGTHS.

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PREFACE TO EIGHTH EDITION

The Council is responsible for the publication of several books including New and Nonofficial Remedies (N. N. R.), Useful Drugs, Epitome of the Pharmacopeia of the United States and the National Formulary and Glandular Physiology and Therapy. These books are revised regularly so that their purchasers will be kept abreast with trends in modern drug therapy.

The Pharmacopeia of the United States and the National Formulary are recognized as authorities for the standards for drugs and drug preparations. It is, therefore, essential that physicians be informed as to the nature of these remedies which are included in these two books of standards. Both the Pharmacopeia and the National Formulary, however, contain much technical information dealing with tests for identity of the substances which is primarily of value to pharmacists but of little value to physicians. Furthermore, neither of the books includes any statement of the actions and uses of the drugs described. In recognition of this fact *The Journal of the American Medical Association* in 1907 issued the "Physicians' Manual of the U. S. Pharmacopeia and National Formulary." It was designed to include such information from the two books as would be of use to the physician. Brief sentences on the included pharmaceuticals indicated their place in therapeutics.

The first edition of the Epitome of the Pharmacopeia of the United States and the National Formulary appeared in 1916. The present (eighth) edition follows the general plan of the previous editions and includes the drugs found in these two official compendiums (U. S. P. XIII and N. F. VIII). Descriptions of the official items are epitomized to contain the following information: Official titles, synonyms, brief definitions, concise descriptions of the physical properties, actions, uses and dosage. The dosage statements are taken from the Pharmacopeia and the National Formulary and give average adult doses. In some instances further suggestions concerning dosage have been added. Those items that are believed to be of doubtful or no therapeutic value are commented on adversely.

In line with action taken by the Council during 1943, only the metric system will be used henceforth in the publications for which the Council is responsible. Adequate conversion tables may be found in each publication for those who wish to convert other units into metric equivalents.

Acknowledgment is made of the assistance of Harold D. Kautz, M.D., and Anne Shimkus of the Council office, and of Albert E. Sidwell Jr., Ph.D., Director of the Chemical Laboratory of the American Medical Association.

AUSTIN SMITH, Editor.

Table of Metric Doses with Approximate Apothecary Equivalents

The *approximate* dose equivalents in the following table represent the quantities which would be prescribed, under identical conditions, by physicians trained in the metric or in the apothecary system of weights and measures.

When prepared dosage forms such as tablets, capsules and pills are prescribed in the metric system, the pharmacist may dispense the corresponding *approximate* equivalent in the apothecary system, and vice versa, as indicated in the following table.

For the conversion of specific quantities in a prescription which requires compounding, or for the conversion of a pharmaceutic formula from one system of weights or measures to the other, *exact* equivalents must be used.

Liquid Measure		Liquid Measure	
Metric	Approximate Apothecary Equivalents	Metric	Approximate Apothecary Equivalents
1,000 cc.	1 quart (946.34 cc.)	3.00 cc.	45 minims
750 cc.	1½ pints (709.75 cc.)	2.00 cc.	30 minims
500 cc.	1 pint (473.17 cc.)	1.00 cc.	15 minims
250 cc.	8 fluidounces (236.58 cc.)	0.75 cc.	12 minims
200 cc.	7 fluidounces (207.01 cc.)	0.60 cc.	10 minims
100 cc.	3½ fluidounces (103.51 cc.)	0.50 cc.	8 minims
50 cc.	1¾ fluidounces	0.30 cc.	5 minims
30 cc.	1 fluidounce	0.25 cc.	4 minims
15 cc.	4 fluidrachms	0.20 cc.	3 minims
10 cc.	2½ fluidrachms	0.10 cc.	1½ minims
8 cc.	2 fluidrachms	0.06 cc.	1 minim
5 cc.	1¼ fluidrachms	0.05 cc.	¾ minim
4 cc.	1 fluidrachm	0.03 cc.	½ minim
	Weight		Weight
30.00 Gm.	1 ounce	40.00 mg.	⅔ grain
15.00 Gm.	4 drachms	30.00 mg.	½ grain
10.00 Gm.	2½ drachms	25.00 mg.	⅜ grain
7.50 Gm.	2 drachms	20.00 mg.	⅓ grain
6.00 Gm.	90 grains	15.00 mg.	¼ grain
5.00 Gm.	75 grains	12.00 mg.	⅕ grain
4.00 Gm.	60 grains (1 drachm)	10.00 mg.	⅙ grain
3.00 Gm.	45 grains	8.00 mg.	⅛ grain
2.00 Gm.	30 grains (½ drachm)	6.00 mg.	1/10 grain
1.50 Gm.	22 grains	5.00 mg.	1/12 grain
1.00 Gm.	15 grains	4.00 mg.	1/15 grain
0.75 Gm.	12 grains	3.00 mg.	1/20 grain
0.60 Gm.	10 grains	2.00 mg.	1/30 grain
0.50 Gm.	7½ grains	1.50 mg.	1/40 grain
0.40 Gm.	6 grains	1.20 mg.	1/50 grain
0.30 Gm.	5 grains	1.00 mg.	1/60 grain
0.25 Gm.	4 grains	0.80 mg.	1/80 grain
0.20 Gm.	3 grains	0.60 mg.	1/100 gfain

Note—A cubic centimeter (cc.) is the approximate equivalent of a milliliter (ml.).

Weight (cont.)	
Metric	Approximate Apothecary Equivalents
0.15 Gm.	2½ grains
0.12 Gm.	2 grains
0.10 Gm.	1½ grains
75.00 mg.	1¼ grains
60.00 mg.	1 grain
50.00 mg.	¾ grain

Weight (cont.)	
Metric	Approximate Apothecary Equivalents
0.50 mg.	1/120 grain
0.40 mg.	1/150 grain
0.30 mg.	1/200 grain
0.25 mg.	1/250 grain
0.20 mg.	1/300 grain
0.15 mg.	1/400 grain
0.12 mg.	1/500 grain
0.10 mg.	1/600 grain

The above *approximate* dose equivalents have been adopted by the latest Pharmacopeia, the National Formulary and New and Nonofficial Remedies, and these dose equivalents have the approval of the Federal Food and Drug Administration.

CLINICAL TABLE OF CENTIGRADE AND FAHRENHEIT THERMOMETRIC EQUIVALENTS

C.	F.	C.	F.
36.0	96.80	39.0	102.20
36.1	96.98	39.1	102.38
36.2	97.16	39.2	102.56
36.3	97.34	39.3	102.74
36.4	97.52	39.4	102.92
36.5	97.70	39.5	103.10
36.6	97.88	39.6	103.28
36.7	98.06	39.7	103.46
36.8	98.24	39.8	103.64
36.9	98.42	39.9	203.82
37.0	98.60	40.0	104.00
37.1	98.78	40.1	104.18
37.2	98.96	40.2	104.36
37.3	99.14	40.3	104.54
37.4	99.32	40.4	104.72
37.5	99.50	40.5	104.90
37.6	99.68	40.6	105.08
37.7	99.86	40.8	105.44
37.8	100.04	41.0	105.80
37.9	100.22	41.2	106.16
38.0	100.40	41.4	106.52
38.1	100.58	41.6	106.88
38.2	100.76	41.8	107.24
38.3	100.94	42.0	107.60
38.4	101.12	42.2	107.96
38.5	101.30	42.4	108.32
38.6	101.48	42.6	108.68
38.7	101.66	42.8	109.04
38.8	101.84	43.0	109.48

ABBREVIATIONS

The following abbreviations occur in the text:

U. S. P.—The Pharmacopeia of the United States of America, Thirteenth Decennial Revision.

N. F.—The National Formulary, Eighth Edition.

P. I.—International Protocol — the terminology of the 1925 Brussels Conference as given in the U. S. Pharmacopeia.

Epitome of the Pharmacopeia of the United States (U.S.P.) and The National Formulary (N.F.)

Acacia, Acacia, U. S. P. (Gum Arabic).

A gum occurring in tears, fragments or powder. Slowly and almost completely soluble in water and insoluble in alcohol. Incompatible with sodium borate, lead subacetate and ferric salts.

ACTION AND USES: Demulcent; chiefly as a vehicle to suspend insoluble substances in aqueous mixtures.

Acacia Mucilage, Mucilago Acaciae, U. S. P. (Mucilage of Gum Arabic).—Acacia (35 per cent) with benzoic acid (0.2 per cent) in water. *Caution—Acacia Mucilage must be free from mold or any other indication of decomposition. (U. S. P.)*

Acacia Syrup, Syrupus Acaciae, N. F.—Acacia (10 per cent with sodium benzoate, vanilla tincture sucrose, and distilled water.
ACTION AND USES: Demulcent; mainly as a vehicle.

Acetanilid, Acetanilidum, U. S. P.—$C_6H_5NH.CH_3CO$.

A white, odorless, crystalline powder with a slightly burning taste. Slightly soluble in water (1 in 190), freely soluble in alcohol (1 in 3.5) and in chloroform (1 in 4). Incompatible with spirit of nitrous ether and forms pasty masses when triturated with chloral hydrate or antipyrine.

ACTION AND USES: Analgesic, antipyretic and, in excessive doses, a cardiac depressant. Used particularly to relieve headache and neuralgic pains. Avoid or use cautiously in debilitated persons, especially those with heart disease. Its indiscriminate use in headache powders is dangerous.

DOSAGE: 0.2 Gm. (U. S. P.) in powders which may be placed in capsules, or tablets which should be crushed before swallowing. It is well to begin with 0.1 Gm. and to repeat cautiously if necessary.

Compound Acetanilid Powder, Pulvis Acetanilidi Compositus, N. F.—Acetanilid (70 per cent), caffeine (10 per cent) and sodium bicarbonate (20 per cent).
USES: Irrational acetanilid preparation. The caffeine does not diminish the toxicity, nor does the bicarbonate increase the solubility of acetanilid, as was at one time supposed.
DOSAGE: 0.3 Gm. (N. F.).

Acetanilid Tablets, Tabellae Acetanilidi, N. F.

Acetarsone, Acetarsonum, N. F. (3-acetyl-amino-4-hydroxyphenyl-arsonic Acid).—$C_8H_{10}AsNO_5$.—When dried over sulfuric acid for three hours, contains about 27.3 per cent of arsenic.

White or slightly yellow, odorless, stable powder. Soluble in alkali hydroxides or carbonates; slightly soluble in water and insoluble in alcohol.

ACTION AND USES: Protozoacide used for the treatment of amebiasis and local treatment of trichomonae vaginitis. The drug is a moderately toxic pentavalent arsenical and should be discontinued at the least sign of intolerance.

DOSAGE: 0.25 Gm. (N. F.) orally in tablet form two or three times daily for a period of seven days is given adults as a course of treatment for amebiasis; 0.5 Gm. by local insufflation of the vagina in the form of a powder containing 12.5 per cent of the drug in a mixture of equal parts of kaolin and sodium bicarbonate is given as a single dose for trichomonas infection.

Acetarsone Tablets, Tabellae Acetarsoni, N. F.

Acetic Acid, Acidum Aceticum, N. F.—$CH_3.COOH$ (about 36.5 per cent). A colorless liquid with a strong, characteristic odor and a sharply acid taste. Miscible with water, alcohol and glycerin.

ACTION AND USES: Caustic and rubefacient. Suitably diluted, or in form of vinegar, it is an antidote to alkalies.

Diluted Acetic Acid, Acidum Aceticum Dilutum, N. F.—$CH_3.COOH$ (about 6 per cent).

DOSAGE: 2 cc. (N. F.).

Glacial Acetic Acid, Acidum Aceticum Glaciale, U. S. P.—$CH_3.COOH$.

A colorless liquid, with a pungent, characteristic odor and, when well diluted with water, an acid taste. Miscible with water, alcohol, and glycerin.

Acetone, Acetonum, N. F. (Dimethyl-Ketone).—$CH_3CO.CH_3$.

A colorless liquid with an ethereal odor and a pungent, sweet taste. Miscible with water, alcohol, ether and chloroform.

ACTION AND USES: Pharmaceutic solvent.

Acetophenetidin, Acetophenetidinum, U. S. P. (Acetphenetidin, Phenacetin).—$C_6H_4OC_2H_5.NH.CH_3CO$.

White, odorless, slightly bitter, crystalline scales or powder. Very slightly soluble in water (1 in 1,300), soluble in alcohol (1 in 15).

ACTION AND USES: Analgesic, antipyretic and, in excessive doses, a cardiac depressant. It has replaced acetanilid for the relief of headache and neuralgic pains and in the treatment of mild fevers. Its relation to acetanilid suggests similar caution in its use.

DOSAGE: 0.3 Gm. (U. S. P.), in powders or capsules. If small doses fail to relieve headache, larger doses are also usually ineffective.

Acetophenetidin and Phenyl Salicylate Tablets, Tabellae Acetophenetidini et Phenylis Salicylatis, N. F. (Phenacetin and Salol Tablets)

DOSAGE: 0.15 Gm. each of acetophenetidin and phenyl salicylate (N. F.).

Acetophenetidin Tablets, Tabellae Acetophenetidini, U. S. P. (Phenacetin Tablets).—The usual sizes contain 0.12 Gm., 0.2 Gm. and 0.3 Gm.

Acetylsalicylic Acid, Acidum Acetylsalicylicum, U. S. P. (Aspirin).—$C_6H_4.OCOCH_3COOH$.

White, odorless crystals or powder, having an acidulous taste, slightly soluble in water (about 1 in 300), freely soluble in alcohol (1 in 5); also soluble with decomposition in solutions of alkali hydroxides and carbonates. It is incompatible with many substances, and it is safer to prescribe it alone.

ACTION AND USES: Its action resembles that of the salicylates; it is used as an antipyretic, analgesic and antirheumatic, and, especially, for the relief of headache. The taste is not nauseating like that of sodium salicylate. It sometimes causes urticaria and dangerous acute edema of the respiratory passages.

DOSAGE: 0.3 Gm. (U. S. P.), in capsules, or in powders in wax paper. The powder should be suspended in water or placed on the tongue and swallowed with water.

Compound Acetylsalicylic Acid Paste, Pasta Acidi Acetylsalicylici Composita, N. F.—Eugenol (2 per cent), Peruvian balsam (10 per cent), acetylsalicylic acid (25 per cent), white wax and wool fat.

ACTION AND USES: Analgesic, chiefly used by dentists.

Acetylsalicylic Acid Tablets, Tabellae Acidi Acetylsalicylici, U. S. P. (Aspirin Tablets).—The usual sizes contain 0.06 Gm. and 0.3 Gm.

Aconite, Aconitum, N. F. (Monkshood, Aconite Root, Aconiti tuber, P. I.).—A tuberous root. Its potency is such that 0.1 Gm. is equivalent to not less than 0.150 mg. of reference aconitine.

ACTION AND USES: It was formerly used to slow the pulse and reduce the temperature in fever, but the customary doses do not secure these effects. Locally it causes tingling followed by local analgesia. This has been used against neuralgic pain, but it is not very effective, and its toxicity is quite high.

Aconite and Chloroform Liniment, Linimentum Aconiti et Chloroformi, N. F.—Fluidextract of aconite (4.5 per cent), in alcohol, chloroform and camphor and soap liniment.

Aconite Fluidextract, Fluidextractum Aconiti, N. F.—1 cc. is equivalent to 1.5 mg. of reference aconitine, N. F. Alcoholic content 63 per cent.

DOSAGE: 0.06 cc. (N. F.). Better to use the tincture.

Aconite Tincture, Tinctura Aconiti, N. F. (Tinctura Aconiti, P. I.).—Aconite (10 per cent) in alcohol and distilled water. Assayed biologically (see under *Aconite*). Alcoholic content about 68 per cent.

DOSAGE: 0.6 cc. (N. F.)

Acriflavine, Acriflavina, N. F. (Acriflavine Base, Neutral Acriflavine).—Chlorine (about 14.5 per cent).

A deep orange, odorless, granular powder. Freely soluble in water (1 in 3) and incompletely soluble in alcohol. Nearly insoluble in ether and in fixed oils.

ACTION AND USES: Antiseptic, especially against the gonococcus; also in wounds and inflamed mucous membranes.

DOSAGE: For application to wounds, solution 1: 1,000; for irrigation, in solution of from 1: 500 to 1: 10,000.

Acriflavine Hydrochloride, Acriflavinae Hydrochloridum, N. F.
A reddish brown, odorless powder. Freely soluble in water (1 in 3) and soluble in alcohol.
ACTION AND USES: Similar to those of acriflavine.

Agar, Agar, U. S. P. (Agar-Agar).—A mucilaginous substance extracted from certain seaweeds.
Nearly white, almost odorless and tasteless strips, shreds or powder, tough when damp, brittle when dry. Insoluble in cold water, but slowly soluble in hot water.

ACTION AND USES: Passes through the intestinal canal almost unchanged. Absorbs and retains moisture, and acts as an intestinal demulcent and lubricant. Used in chronic constipation of intestinal atony; renders the feces soft and bulky and thus promotes peristalsis.

DOSAGE: 4 Gm. (U. S. P.).

Alcohol, Alcohol, U. S. P. (Ethanol, Ethyl Alcohol, Spiritus Vini Rectificatus).—Not less than 92.3 per cent by weight or 94.9 per cent by volume of C_2H_5OH.
A colorless, volatile, inflammable liquid with a characteristic odor and burning taste. Freely miscible with water, ether or chloroform.

ACTION AND USES: Locally, rubefacient, astringent and antiseptic; cooling by its evaporation, it reduces temperature. Internally it is a narcotic. It is used as a stimulant but may do more harm than good.

Dehydrated Alcohol, Alcohol Dehydratum, N. F. ("Absolute Alcohol," Dehydrated Ethanol).—Not less than 99 per cent by weight of C_2H_5OH.
A liquid with the color, odor and taste of alcohol.

Diluted Alcohol, Alcohol Dilutum, U. S. P. (Diluted Ethanol).—About 41.5 per cent by weight or 49 per cent by volume of C_2H_5OH.

Alcohol Rubbing Compound, Alcohol Fricamentum Compositum, N. F. (Rubbing Alcohol).
Must meet requirements of Bureau of Internal Revenue, United States Treasury Department, using specially denatured alcohol formula 23 G or 23 H, and contains sucrose octa-acetate, not less than 0.355 Gm. per hundred cubic centimeters.
Transparent, colorless, mobile, inflammable, volatile liquid having a bitter taste.
NOTE: Alcohol Rubbing Compound must be packaged, labeled and sold in accordance with the regulations issued by the Bureau of Internal Revenue, United States Treasury Department. (N. F.).
ACTION AND USES: Rubefacient; mainly as a skin-conditioning agent and adjunct to skin massage in the care of bedfast patients.

Aromatic Elixir, Elixir Aromaticum, U. S. P. (Simple Elixir).—Compound orange spirit in syrup, purified talc, alcohol and distilled water. Alcoholic content about 23 per cent.

USES: Diluent and vehicle. The alcohol content of this preparation should not be disregarded. This applies also to the following elixirs which are used for vehicles.

Glycyrrhiza Elixir, Elixir Glycyrrhizae, N. F. (Elixir of Licorice).—Glycyrrhiza fluidextract (12.5 per cent) and aromatic elixir. Alcoholic content about 22 per cent.

Iso-Alcoholic Elixir, Elixir Iso-Alcoholicum, N. F. (Iso-Elixir).—Adjustable mixtures of low-alcoholic elixir (8 to 10 per cent C_2H_5OH) and a high-alcoholic elixir (73 to 78 per cent C_2H_5OH) in definite proportions intended to serve as diluents for medicaments that require solvents of certain alcoholic strengths.

Red Aromatic Elixir, Elixir Aromaticum Rubrum, N. F. (Red Elixir).—Aromatic elixir colored with cudbear. Alcoholic content about 23 per cent.

Isopropyl Alcohol Rubbing Compound, Alcohol Isopropylicum Fricamentum Compositum, N. F. (Isopropanol Rubbing Compound).

Contains about 70 per cent isopropyl alcohol by volume, to which small quantities of perfume oils may be added.

A transparent, colorless, mobile and volatile liquid, having a slightly bitter taste and, in the absence of odorous constituents, a characteristic odor.

ACTION AND USES: Rubefacient; effective substitute for ethyl alcohol rubbing compound, over which it has no therapeutic advantage.

Expressed Almond Oil, Oleum Amygdalae Expressum, U. S. P. (Sweet Almond Oil).—A fixed oil; similar to olive oil.

ACTION AND USES: Emollient.

Allyl Isothiocyanate, Allylis Isothiocyanas, N. F.—(Volatile Oil of Mustard).—Prepared synthetically or from the dried ripe seed (free of fixed oil) of Brassica nigra (Linné) Koch or Brassica juncea (Linné) Cossen (Fam. Cruciferae). It contains not less than 93 per cent of C_3H_5NCS.

Allyl Isothiocyanate must be labeled to indicate whether it was made synthetically or distilled from either of the plants mentioned previously. Caution: Great care must be exercised in smelling allyl isothiocyanate. It should be tasted only when highly diluted. (N. F.)

Colorless or pale yellow, strongly refractive liquid, having a pungent, irritating odor, and an acrid taste. It is optically inactive. Miscible with alcohol or ether.

ACTION AND USES: Powerful irritant and rapid vesicant; employed as counterirritant dissolved in alcohol or fixed oils. Not used internally.

Bitter Almond Oil, Oleum Amygdalae Amarae, N. F.—A volatile oil containing benzaldehyde (not less than 80 per cent) and hydrogen cyanide (about 3 per cent).

Slightly soluble in water; miscible with alcohol or ether.

ACTION AND USES: Medicinal flavoring agent, especially for emulsions. *Caution: This Bitter Almond Oil is intended for medicinal use and neither it nor its solution should be used or sold for flavoring foods.* (N. F.)

DOSAGE: 0.03 cc.

Bitter Almond Water, Aqua Amygdalae Amarae, N. F.—Bitter almond oil (0.1 per cent) in distilled water. Contains only a trace of hydrocyanic acid.

Aloe, Aloe, U. S. P. (Aloes).—The dried juice of different species (Socotrine, Curaçao or Cape Aloe) of Aloe.

ACTIONS AND USES: Moderately active cathartic used in the treatment of chronic constipation. Acts mainly on the large intestine.

DOSAGE: 0.25 Gm. (U. S. P.), as pills.

Aloe and Mastic Pills, Pilulae Aloes et Mastiches, N. F. (Lady Webster Dinner Pills).—Each pill contains aloe, 0.13 Gm., and mastic, 0.04 Gm., with rose.

DOSAGE: 2 pills (N. F.)

Aloe Pills, Pilulae Aloes, N. F.—Each pill contains aloe, 0.13 Gm., with soap.

DOSAGE: 2 pills (N. F.).

Aloe Tincture, Tinctura Aloes, N. F.—Aloe (10 per cent) and glycyrrhiza in diluted alcohol. Alcoholic content about 46 per cent.

USES: Disagreeable cathartic.

DOSAGE: 2 cc. (N. F.).

Aloin, Aloinum, U. S. P.—Obtained from aloe.

A yellow, odorless, intensely bitter powder. Soluble in water, in alcohol and in acetone.

ACTION AND USES: Similar to those of aloe; is more readily absorbed, and large doses sometimes produce renal irritation.

DOSAGE: 15 mg. (U. S. P.), in pills. In chronic constipation, frequently given in doses of from 6 mg. to 20 mg. with belladonna extract and strychnine, as in the following official pills. The mixture is irrational; the effect of the belladonna ceases long before that of the aloin begins.

Aloin, Belladonna, Cascara and Podophyllum Pills, Pilulae Aloini, Belladonnae, Cascarae et Podophylli, N. F. (Hinkle's Pills).—Each pill contains 16 mg. each of aloin and of cascara sagrada extract, 10 mg. podophyllum resin, 8 mg. belladonna extract and 4 mg. ginger oleoresin with glycyrrhiza and glucose.

ACTION AND USES: Needlessly complex, irrational cathartic mixture; the action of the belladonna component to prevent griping is of short duration, so that its effect is ended before cathartic action is manifest.

DOSAGE: 1 pill (N. F.).

Aloin, Strychnine and Belladonna Pills, Pilulae Aloini, Strychninae et Belladonnae, N. F.—Each pill contains aloin, 0.013 Gm., strychnine, 1 mg., and extract of belladonna, 0.008 Gm., with glycyrrhiza and glucose.

DOSAGE: 1 pill (N. F.).

Aloin, Strychnine, Belladonna and Cascara Pills, Pilulae Aloini, Strychninae, Belladonnae et Cascarae, N. F.—Each pill contains aloin, 0.013 Gm., strychnine, 0.5 mg., extract of belladonna, 0.008 Gm., and extract of cascara sagrada, 0.0325 Gm., with glycyrrhiza and glucose.

DOSAGE: 1 pill (N. F.).

Aloin, Strychnine, Belladonna and Ipecac Pills, Pilulae Aloini, Strychninae, Belladonnae et Ipecacuanhae, N. F.—Each pill contains aloin, 0.016 Gm., strychnine, 0.001 Gm., extract of belladonna, 0.008 Gm. and ipecac, 0.004 Gm., with glycyrrhiza and glucose.

DOSAGE: 1 pill (N. F.).

Althea, Althaea, N. F. (Marsh Mallow Root).

ACTION AND USES: Demulcent and emollient; without advantage over other demulcents, such as chondrus, tragacanth, slippery elm and flaxseed.

Althea Syrup, Syrupus Althaeae, N. F.—Althea (5 per cent) with alcohol, glycerin and sucrose in distilled water. Alcoholic content about 2.5 per cent.

Alum, Alumen, U. S. P.—$AlNH_4(SO_4)_2.12H_2O$ or $AlK(SO_4)_2.12H_2O$. (The physician may indicate whether ammonium alum or potassium alum is desired.)

Colorless crystals or white powder, odorless, of sweetish, strongly astringent taste. One Gm. of Ammonium Alum is soluble in 7 cc. of water at 25 C. and in about 0.3 cc. of boiling water. One Gm. of Potassium Alum is soluble in 7.5 cc. of water at 25 C. and in about 0.3 cc. of boiling water. Alum is insoluble in alcohol. It is freely but slowly soluble in glycerin.

ACTION AND USES: Astringent, styptic and hemostatic. Seldom administered internally.

DOSAGE: As a gargle, in from 1 to 5 per cent solution (somewhat injurious to the teeth); obsolete as an injection in urethritis, in from 0.5 to 1 per cent solution; as a lotion in skin diseases, in 1 per cent solution.

Exsiccated Alum, Alumen Exsiccatum, U. S. P. (Dried Alum, Burnt Alum).—Anhydrous $AlNH_4(SO_4)_2$ or anhydrous $AlK(SO_4)_2$. (The salt desired may be indicated.)

White, odorless powder of sweetish, astringent taste. Very slowly soluble in water (1 in 20); insoluble in alcohol.

ACTIONS AND USES: Similar to alum, but more escharotic.

Aluminum Acetate, Alumini Acetas.

Aluminum Acetate Solution, Liquor Alumini Acetatis, N. F. (Burow's Solution).—Yields about 1.3 per cent Al_2O_3 and about 5 per cent CH_3COOH.

USES: Average dilution for external use. Dilute with 9 volumes of water. (N. F.) Popular astringent wash. Some prefer a dilution with 19 parts of water.

Aluminum Chloride, Alumini Chloridum, N. F.—$AlCl_3\ 6H_2O$.

A white or yellowish white, odorless, crystalline, deliquescent powder with a sweet, astringent taste. Very soluble in water (1 in 0.5), freely soluble in alcohol (about 1 in 4), and soluble in glycerin.

ACTION AND USES: Antiseptic and astringent, without advantage over alum.

DOSAGE: 0.3 Gm.

Aluminum Chloride Solution, Liquor Alumini Chloridi, N. F.—Aluminum chloride (25 per cent) in water.

USES: Used undiluted on unbroken skin.

Aluminum Hydroxide Gel, Gelatum Alumini Hydroxidi, U. S. P. (Colloidal Aluminum Hydroxide).—An aqueous suspension containing the equivalent of about 4 per cent Al_2O_3, chiefly in the form of aluminum hydroxide. Note—Sufficient oil of peppermint, glycerin, sucrose, or saccharin may be added for flavoring and other purposes. Sodium benzoate not exceeding 0.5 per cent may be added as a preservative.

A white, viscous suspension, translucent in thin layers, from which small amounts of water may separate on standing.

ACTION AND USES: It is an effective gastric antacid for oral use as an adjunct in the treatment of peptic ulcer and symptomatic hyperchlorhydria.

DOSAGE: 8 cc. (U. S. P.).

Dried Aluminum Hydroxide Gel, Gelatum Alumini Hydroxidi Siccum, U. S. P.—When ignited to constant weight, yields not less than 50 per cent Al_2O_3.

White, odorless, tasteless, amorphous powder. Insoluble in water and in alcohol. Soluble in diluted mineral acids and in solutions of fixed alkalies.

ACTION AND USES: Used for the same purpose as Aluminum Hydroxide Gel.

DOSAGE: 0.6 Gm. (U. S. P.).

Aluminum Phosphate Gel, Gelatum Alumini Phosphatis, U. S. P.—An aqueous suspension containing about 4.1 per cent $AlPO_4$. Note—Sufficient peppermint oil, glycerin, sucrose or saccharin may be added for flavoring and other purposes. Sodium benzoate not to exceed 0.5 per cent may be used as a preservative.

A white, viscous suspension from which small amounts of water may separate on standing.

ACTION AND USES: Gastric antacid, astringent and demulcent for the treatment of peptic ulcer; especially in cases where phosphate deficiency precludes the use of other aluminum preparations that may interfere with absorption of phosphates.

DOSAGE: 8 cc. (U. S. P.) Twice this amount may be required at intervals of two hours during the acute stage of ulcer. More than twice the usual dose for aluminum hydroxide gel is needed to provide an approximately equivalent acid-combining power.

Aluminum Subacetate, Alumini Subacetas.—Basic aluminum acetate $Al(C_2H_3O_2)_2OH$.

Aluminum Subacetate Solution, Liquor Alumini Subacetatis, N. F.—Yields about 2.4 per cent Al_2O_3 and about 6 per cent CH_3COOH.

USES: Astringent wash, usually diluted with 9 parts of water. Some prefer a dilution with 19 parts of water.

Aluminum Sulfate, Alumini Sulfas, N. F.—$Al_2(SO_4)_3 18H_2O$. White crystalline powder, shining plates, or crystalline fragments, permanent in the air. It is odorless, and has a sweet taste, becoming mildly astringent. Freely soluble in water (1 in 1), but insoluble in alcohol.

ACTION AND USES: Similar to, and without advantage over, alum.

Amaranth, Amaranthum, U. S. P.—(F. D. and C. Red No. 2) A reddish brown powder, forming a magenta-red solution in water. Soluble in water (1 in 15) and very slightly soluble in alcohol.

USES: Used for coloring foods and pharmaceutic preparations.

Amaranth Solution, Liquor Amaranthi, U. S. P.–Amaranth (1 per cent) in distilled water.

Aminoacetic Acid, Acidum Aminoaceticum, N. F. (Glycocoll, Glycine).—$H_2N.CH_2.COOH$.

White, odorless, crystalline powder, having a sweetish taste. Freely soluble in water (1 in 4), very slightly soluble in alcohol and ether.

ACTION AND USES: It affects muscle creatine retention in certain cases of myasthenia gravis and progressive or pseudo hypertrophic muscular dystrophy. It has been superseded by neostigmine.

DOSAGE: 30 Gm. (N. F.).

Aminoacetic Acid Elixir, Elixir Acidi Aminoacetici, N. F. (Glycocoll Elixir).—Contains approximately 13 per cent of aminoacetic acid in a liquid mixture of syrup (including raspberry), alcohol, benzoic acid, compound orange spirit, vanillin and distilled water.

ACTION AND USES: Irrational tonic for oral administration of aminoacetic acid that provides amounts too small to be adequate for body protein requirements or as a source of energy. The approximate 5 per cent alcohol content is undesirable for children.

DOSAGE: 15 cc. (N. F.); contains only about 2 Gm. of aminoacetic acid.

Aminophylline, Aminophyllina, U. S. P. (Theophylline Ethylenediamine, U. S. P. XII)—Contains from 75 to 82 per cent anhydrous theophylline and not less than 12.3 per cent and not more than 13.8 per cent ethylenediamine.

White or yellowish granules with a slight ammoniacal odor and a bitter taste. Freely soluble in water (1 in 5) and insoluble in alcohol.

ACTION AND USES: Similar to those of theophylline, but more commonly used in the treatment of cardiac disease and by injection for the treatment of epinephrine- fast asthma. It has the advantage over theophylline of being readily soluble.

DOSAGE: 0.2 Gm. (U. S. P.).

Aminophylline Injection, Injectio Aminophyllinae, U. S. P. (Theophylline Ethylenediamine Injection, U. S. P. XII).—

Sterile solution in water for injection. The usual sizes contain 0.25 Gm. in 10 cc., 0.5 Gm. in 2 cc. and 0.5 Gm. in 20 cc.

DOSAGE: Intramuscular or intravenous, 0.1 Gm. of aminophylline (U. S. P.).

Aminophylline Tablets, Tabellae Aminophyllinae, U. S. P. (Theophylline Ethylenediamine Tablets, U. S. P. XII).—The usual sizes contain 0.1 Gm. and 0.2 Gm.

Aminopyrine, Aminopyrina, U. S. P. (Amidopyrine.)

Colorless, or white, crystals or crystalline powder; odorless and almost tasteless; soluble in water (1 in 18), freely soluble in alcohol (1 in 1.5), in chloroform (1 in 1) and in ether (1 in 13).

ACTIONS AND USES: It is an antipyretic and anodyne, acting somewhat more slowly than antipyrine but with a more lasting effect. Its use is not safe, since it may cause granulocytopenia. Unusual sensitivity, fatigue and menstruation are factors in the toxicity. The administration should be stopped if skin eruption, dizziness or chill occurs. Large doses or continued small doses require frequent leucocyte and differential counts.

DOSAGE: 0.3 Gm. (U. S. P.), preferably in tablets.

Aminopyrine Elixir, Elixir Aminopyrinae, N. F. (Amidopyrine Elixir).—Aminopyrine (4 per cent), in compound spirit of orange, glycerin, syrup, alcohol, compound cudbear tincture and distilled water. Alcohol content about 18.5 per cent.

DOSAGE: 4 cc. (N. F.).

Aminopyrine Tablets, Tabellae Aminopyrinae, U. S. P. (Amidopyrine Tablets).

Ammonia, Ammonia (NH_3).

Ammonia Liniment, Linimentum Ammoniae, N. F. (Volatile Liniment, Hartshorn Liniment).—Diluted ammonia solution (25 per cent) in oleic acid and sesame oil.

USES: Counterirritant.

Anisated Ammonia Spirit, Spiritus Ammoniae Anisatus, N. F. (Liquor Ammoniae Anisatus, Anisated Ammonia Solution). Diluted Ammonia solution (20 per cent) with anethole, in alcohol. Alcoholic content about 73 per cent.

USES: Aromatic carminative.

DOSAGE: 1 cc. (N. F.).

Diluted Ammonia Solution, Liquor Ammoniae Dilutus, U. S. P. (Ammonia Water, Diluted Ammonium Hydroxide Solution).—NH_3 (about 9.5 per cent) in distilled water.

A liquid with a strong odor and a caustic, soapy taste. Loses NH_3 readily. Miscible with water or alcohol.

USES: Local irritant, preferably as a liniment. Volatile indirect circulatory and respiratory stimulant. Antacid.

DOSAGE: 1 cc. This should be largely diluted with water. The aromatic ammonia spirit is preferable for internal administration. (See under Ammonium Carbonate).

Strong Ammonia Solution, Liquor Ammoniae Fortis, U. S. P. Stronger Ammonia Water, Stronger Ammonium Hydroxide Solution.—NH_3 (about 28 per cent) in water.

Loses NH_3 very readily. Miscible with water or alcohol.

Caution: Great care should be used in handling Strong Ammonia Solution because of the caustic and irritating properties of its vapor. Before the container is opened it should be well cooled and the closure covered with a towel before removal. Strong Ammonia Solution must never be tasted or its vapor inhaled. U. S. P.

Ammonium Acetate, Ammonii Acetas.

Ammonium Acetate, Ammonii Acetas, Ammonium Acetate Solution, Liquor Ammonii Acetis, N. F.—A recently prepared solution containing $CH_3COO.NH_4$ (about 7 per cent).

USES: Diaphoretic and diuretic in fevers; of doubtful value.

DOSAGE: 15 cc. (N. F.).

Ammonium Bromide, Ammonii Bromidum, N. F.—NH_4Br.

Colorless crystals, or white crystalline powder, odorless. Somewhat hygroscopic. Soluble in water (1 in 1.3) and in alcohol (1 in 12).

ACTION AND USES: Those of the bromides; more irritant than potassium bromide, over which it has no advantage.

DOSAGE: 1 Gm. (N. F.), in solution.

Ammonium Bromide Elixer, Elixir Ammonii Bromidi, N. F.—Ammonium bromide (8.5 per cent), syrup, distilled water and aromatic elixir. Alcoholic content about 6 per cent.

DOSAGE: 4 cc. (N. F.).

Ammonium Carbonate, Ammonii Carbonas, U. S. P.—A mixture of ammonium acid carbonate ($NH_4.HCO_3$) and ammonium carbamate ($NH_2.COO.NH_4$) yielding about 31 per cent of NH_3.

White, hard, translucent masses, with a strong ammoniacal odor and a sharp, ammoniacal taste. Very slowly soluble in water (1 in 4); incompletely soluble in alcohol.

ACTION AND USES: Alkaline and nauseant liquefying expectorant; also used as reflex stimulant in smelling salts.

DOSAGE: 0.3 Gm. (U. S. P.), in solution.

Expectorant Mixture, Mistura Pectoralis, N. F. (Stoke's Expectorant).—Ammonium carbonate (1.8 per cent), fluidextracts of senega and squill (each 3.5 per cent), camphorated tincture of opium (17.5 per cent), distilled water and syrup of tolu balsam. Alcoholic content about 11 per cent.

USES: Polypharmacal expectorant mixture.

DOSAGE: 4 cc. (N. F.).

Aromatic Ammonia Spirit, Spiritus Ammoniae Aromaticus, U. S. P.—Ammonium carbonate (3.4%), ammonia water (9%) and oils of lemon, lavender, and myristica in alcohol and distilled water. Alcoholic content about 65 per cent by volume.

USES: Useful aromatic alkali and carminative useful in "heartburn," flatulence and colic, and as reflex stimulant.

DOSAGE: 2 cc. (U. S. P.), in half a glass of water.

Ammonium Chloride, Ammonii Chloridum, U. S. P. (Muriate of Ammonia).—NH_4Cl.

A white, odorless powder or colorless crystals with a saline taste. Freely soluble in water (1 in 2.6), sparingly soluble in alcohol (1 in 100), in glycerin (1 in 8) and in boiling water (1 in 1.4).

ACTION AND USES: Saline liquefying expectorant; used in cough mixtures, and in the treatment of inflammation of the air-passages; as a diuretic and to render the urine acid.

DOSAGE: 0.3 Gm. (U. S. P.), in solution as expectorant; from 3 to 6 Gm. daily as diuretic, being careful to avoid acidosis.

Ammonium Chloride Capsules, Capsulae Ammonii Chloridi, U. S. P.—The usual sizes contain 0.3 Gm. or 0.5 Gm.

Ammonium Chloride Tablets, Tabellae Ammonii Chloridi, N. F.

DOSAGE: 0.3 Gm. of ammonium chloride (N. F.). Larger doses are required to cause diuresis or to render the urine acid.

Ammonium Iodide, Ammonii Iodidum, N. F.—NH_4I. Colorless crystals or white granular powder; odorless, with a sharp, saline taste. Very soluble in water (1 in 0.6), freely soluble in alcohol (1 in 3.7) and soluble in glycerin (1 in 1.5).

ACTION AND USES: Similar to those of sodium or potassium iodide.

DOSAGE: 0.3 Gm. (N. F.).

Ammonium Salicylate, Ammonii Salicylas, N. F.—$C_6H_4.OH.COONH_4$.

Colorless, lustrous prisms, or plates, or white, crystalline powder. It is odorless, and has at first a slightly saline, bitter taste, with a sweetish after-taste. Freely soluble in water (1 in 1) and in alcohol (1 in 3). Incompatible with acids and fixed alkalies.

ACTION AND USES: Those of salicylates; without advantage over sodium salicylate.

DOSAGE: 1 Gm. (N. F.), in solution.

Acid Ammonium Valerate, Ammonii Valeras Acidus, N. F. (Ammonium Valerianate).—Yields about 35 per cent $C_4H_9COONH_4$ and about 65 per cent C_4H_9COOH.

Colorless plates, having a valerian odor and a sharp, sweetish taste. Very soluble in water (1 in 0.3) and in alcohol (1 in 0.6) and soluble in ether.

ACTION AND USES: Has been used as a sedative in hysteria, but there is no evidence that it has therapeutic value.

DOSAGE: 0.125 Gm. (N. F.).

Ammonium Valerate Elixir, Elixir Ammonii Valeratis, N. F. (Elixir of Ammonium Valerianate).—Acid ammonium valerate (3.5 per cent) chloroform (0.2 per cent), tincture of vanilla (1.6 per cent) and compound cudbear tincture (1.6 per cent), in diluted solution of ammonia and aromatic elixir. Alcoholic content about 22 per cent.

DOSAGE: 4 cc. (N. F.). The alcoholic content should be borne in mind.

Amyl Nitrite, Amylis Nitris, U. S. P.—Not less than 90 per cent $C_5H_{11}ONO$ (chiefly iso-amyl-nitrite).

A yellowish liquid with a fruity odor and a pungent, aromatic taste. Very volatile; almost insoluble in water, miscible with alcohol or ether.

ACTION AND USES: Prompt vasodilator, used by inhalation, especially in spasms of angina pectoris, asthma and in general convulsions.

DOSAGE: 0.2 cc. (U. S. P.) by inhalation.

Amylene Hydrate, Amyleni Hydras, U. S. P. (Tertiary Amyl Alcohol).—$C_5H_{12}O$.

Clear, colorless liquid, having a camphoraceous odor and a burning taste. Soluble in water (1 in 8). Miscible with alcohol, with chloroform, with ether and with glycerin.

ACTION AND USES: See **Tribromoethanol Solution.**

Anethole, Anethole, N. F.—$C_{10}H_{12}O$.—Parapropenyl anisole, the chief constituent of anise oil and fennel oil.

A colorless or yellowish liquid with a sweet taste and an odor of anise; solid below 20 C. Almost insoluble in water, but freely soluble in alcohol, ether or chloroform.

ACTION AND USES: Carminative. Similar to, but without advantage over, anise oil.

DOSAGE: 0.1 cc. (N. F.).

Anhydrohydroxyprogesterone, Anhydrohydroxyprogesteroni, U. S. P.—($C_{21}H_{28}O_2$).

White or slightly yellow crystals or powder, affected by light but odorless and stable in air. Practically insoluble in water, slightly soluble in alcohol, in ether, in other organic solvents and in vegetable oils.

ACTION AND USES: Synthetic crystalline compound having progestational activity of the hormone of the corpus luteum. It is similar in action to progesterone, except that it is effective orally and requires larger doses. The therapeutic indications for progesterone preparations are not definitely established.

DOSAGE: 10 mg. (U. S. P.), orally.

Anhydrohydroxyprogesterone Tablets, Tabellae Anhydrohydroxyprogesteroni, U. S. P.

DOSAGE: 10 mg. (U. S. P.), usually available in 5 or 10 mg. tablets.

Anise, Anisum, N. F. (Aniseed).
ACTION AND USES: Carminative. (See Anise Oil).
DOSAGE: 0.5 Gm. (N. F.).

Anise Oil, Oleum Anisi, U. S. P.—A volatile oil from anise.

Freely soluble in alcohol (1 in 3).

Note: If solid material has separated, carefully warm the mixture at a low temperature until it is completely liquefied and mix it thoroughly before using. (U. S. P.)

ACTION AND USES: Aromatic carminative and flavor.

DOSAGE: 0.1 cc. on sugar.

Anise Spirit, Spiritus Anisi, N. F.—Anise oil (10 per cent) in alcohol. Alcoholic content about 84 per cent.
DOSAGE: 1 cc. (N. F.).

Anise Water, Aqua Anisi, U. S. P.—A saturated solution of anise oil in distilled water.

DOSAGE: 15 cc.

Antimony Potassium Tartrate, Antimonii Potassii Tartras, U. S. P. (Antimonyl Potassium Tartrate, Tartar Emetic).

A white powder or colorless crystals, odorless, with a sweet metallic taste. Soluble in water (1 in 12) and in glycerin (1 in 15); insoluble in alcohol.

ACTION AND USES: Nauseant expectorant and emetic. Emetic doses and the prolonged use of expectorant doses are somewhat dangerous. Intravenously against certain protozoan infections, especially schistosomiasis, kala-azar and granuloma inguinale.

DOSAGE: 3 mg. (U. S. P.) as an expectorant. It is preferable to use 1 mg., which may be repeated hourly, taking care to avoid too great depression. The emetic dose is 0.03 Gm. but its use as an emetic is not recommended. For intravenous administration, 1 per cent solution in isotonic sodium chloride solution is used. The initial dose may be 0.04 Gm.

Antimony Sodium Thioglycollate, Antimonii Sodii Thioglycollas, U. S. P.—Contains about 37 per cent of antimony, when dried at 100 C.

White or pink powder, which has no odor or a faint mercaptan odor. Freely soluble in water; insoluble in alcohol. Discolored by light.

ACTION AND USES: Useful in 0.5 per cent solution for intramuscular (or rarely, intravenous) injection in the treatment of schistosomiasis and leishmaniasis, including granuloma inguinale. Its use in trypanosomiasis has been replaced by pentavalent organic arsenicals. The nauseant, emetic and

intestinal irritant properties of antimony compounds render them unsuitable for oral administration. Its solutions are incompatible with solutions of fixed alkalies.

DOSAGE: 50 mg. (U. S. P.) in 10 cc. of sterile distilled water by intramuscular injection is given every third or fourth day for a course of fifteen to twenty-five injections.

Antimony Sodium Thioglycollate Injection, Injectio Antimonii Sodii Thioglycollatis, U. S. P.—Contains an amount of antimony equivalent to about 36.9 per cent of the labeled amount of antimony sodium thioglycollate. Sodium citrate, 1 per cent, and thioglycollic acid, 0.1 per cent, may be used as a preservative.

DOSAGE: 50 mg. (U. S. P.), available in ampuls containing 50 or 100 mg. of the drug in 10 or 20 cc. respectively, of solution.

Antipyrine, Antipyrina, N. F. (Phenazone).—$C_{11}H_{12}N_2O$.

Colorless crystals or a white, odorless powder, with a slightly bitter taste. Very soluble in water (1 in less than 1), freely soluble in alcohol (1 in 1.3).

ACTION AND USES: Antipyretic and analgesic, similar to acetanilid. It may produce agranulocytosis.

DOSAGE: 0.3 Gm. (N. F.), in solution, given with caution.

Apocynum, Apocynum, N. F. (Black Indian Hemp, Canada-hemp).—Rhizome and roots.

ACTION AND USES: Actions similar to those of digitalis; unreliable because of variable rate of absorption.

DOSAGE: 60 mg. (N. F.).

Caution: The tolerance of the patient to the possible toxic or cumulative action of the drug should be carefully observed and the dosage regulated accordingly.

Apomorphine Hydrochloride, Apomorphinae Hydrochloridum, U. S. P.—$C_{17}H_{17}O_2N.HCl.\frac{1}{2}H_2O$.

Minute white or grayish white, glistening, odorless crystals, becoming greenish on exposure to light and air and having a slightly bitter taste. Sparingly soluble in water (1 in 50) and in alcohol (1 in 50).

ACTION AND USES: Prompt centrally acting emetic, especially adapted for hypodermic administration. The nausea is prolonged and depressing. Rarely used as nauseant expectorant.

DOSAGE: Emetic, by hypodermic injection, 5 mg. (U. S. P.). This may be repeated at ten minute intervals until effective, but it should be remembered that in some cases with depression of the centers apomorphine produces toxic effects, without causing vomiting. Expectorant, 1 mg. (U. S. P.), repeated once an hour or once in two hours.

Apomorphine Hydrochloride Tablets, Tabellae Apomorphinae Hydrochloridi, U. S. P.

Aralia, Aralia, N. F. (American Spikenard, Spignet).—Rhizome and roots.

ACTION AND USES: Obsolete irritant, diaphoretic and "alterative." Probably without value.

DOSAGE: 2 Gm. (N. F.).

Areca, Areca, N. F. (Arecanut, Betelnut).—Dried ripe seed.

ACTION AND USES: Used against intestinal parasites, principally in veterinary medicine.

Arecoline Hydrobromide, Arecolinae Hydrobromidum, N. F.

ACTION AND USES: Used principally in veterinary medicine.

Arecoline Hydrobromide Tablets, Tabellae Arecolinae Hydrobromidi, N. F.

ACTION AND USES: Veterinary vermifuge.

DOSAGE: Horses, 30 mg. (N. F.) subcutaneously in aqueous solution. Dogs, 1.5 mg. (N. F.) per kilogram of body weight; tablets usually available containing 8, 15, 30 and 60 mg. of the drug.

Arnica, Arnica, N. F. (Arnica Flowers, European Arnica, American Arnica).

ACTION AND USES: Its internal use in irrational. The tincture diluted with water is a mild counterirritant and cooling lotion and is a household remedy for bruises and other minor injuries. The alcohol of the tincture is probably its most active ingredient.

DOSAGE: 0.2 Gm. (N. F.).

Arnica Fluidextract, Fluidextractum Arnicae, N. F. (Arnica Flowers Fluidextract).—Alcoholic content about 63 per cent.

DOSAGE: 0.1 cc. (N. F.)

Arnica Tincture, Tinctura Arnicae, N. F.—Arnica (20 per cent). Alcoholic content about 66 per cent.

DOSAGE: 0.5 cc. (N. F.).

Arsenic Triiodide, Arseni Triiodidum, N. F. (Arsenous Iodide).—AsI_3.

An orange-red, odorless or nearly odorless powder. Soluble in water (1 in 12) with partial decomposition; soluble in alcohol, in chloroform, in ether and in carbon disulfide. *Caution—Arsenic Triiodide is extremely poisonous. (N. F.)*

ACTION AND USES: Similar to those of arsenic trioxide, over which it has no advantage.

DOSAGE: 5 mg. (N. F.).

Arsenic and Mercuric Iodides Solution, Iiquor Arseni et Hydrargyri Iodidorum, N. F. (Donovan's Solution).—Arsenic triiodide and red mercuric iodide (each 1 per cent), sodium bicarbonate (0.9 per cent), and distilled water. *Note: Do not dispense Arsenic and Mercuric Iodides Solution of darker than pale yellow in color. (N. F)*

DOSAGE: 0.1 cc. (N. F.).

Arsenic Trioxide, Arseni Trioxidum, U. S. P. (Arsenious Acid, Arsenious Oxide).—As_2O_3.

White, odorless powder. Slowly soluble in water, slightly soluble in alcohol and ether and freely soluble in glycerin. Readily dissolved by hydrochloric acid and by alkaline solutions. *Caution: Arsenic Trioxide is extremely poisonous. (U. S. P.)*

ACTIONS AND USES: Increases the permeability of the capillaries. Modifies blood formation. Believed to modify

nutrition. Used in anemias, in skin diseases and in nervous diseases. Externally, a mild escharotic, but the danger of poisoning prevents its general use. Likely to produce nephritis. A very common poison.

DOSAGE: 2 mg. (U. S. P.), in pills or solutions.

Arsenious Acid Solution, Liquor Acidi Arseniosi, N. F. (Arsenic Hydrochloric Solution, Arsenic Chloride Solution).—Arsenic trioxide (1 per cent) in diluted hydrochloric acid (5 per cent) and distilled water.

DOSAGE: 0.2 cc (N. F.).

Arsenic Trioxide Tablets, Tabellae Arseni Trioxidi, N. F. (Arsenous Acid Tablets).

Arsphenamine, Arsphenamina, U. S. P. (Diaminodihydroxyarsenobenzene Dihydrochloride).—Contains about 31 per cent of arsenic and complies with the requirements of the United States Public Health Service.

A light yellow, odorless, or nearly odorless, hygroscopic powder. In the dry state or in solution it is oxidized on exposure to the air, becoming darker and more toxic. It is soluble in water, in alcohol and in glycerin.

ACTION AND USES: Arsphenamine is a specific remedy for syphilis in all stages, but is the more efficient the more recent the infection. It is especially indicated in the primary stage; in the later stages continuous medication should be maintained for several years by alternating courses of arsenic and bismuth preparations.

Arsphenamine is also used in various spirillar diseases.

Note: All arsphenamine labels must bear an expiration date beyond which the arsphenamine must not be used. This date must not be more than five years from the date of manufacture.

DOSAGE: *Caution!* Intravenous 0.3 Gm. (U. S. P.) dissolved in warm water without shaking. *Prior to injection the solution must be alkalinized with 0.85 cc. of normal sodium hydroxide for each 0.1 Gm. of arsphenamine. (U. S. P.).* Its use by any one who has not mastered the proper technic is dangerous.

Asafetida, Asafoetida, N. F. (Gum Asafetida).—A gum resin yielding not less than 50 per cent of alcohol-soluble extractive or more than 15 per cent of acid-insoluble ash.

ACTION AND USES: Used as a carminative and also in the treatment of hysteria, the action being probably mainly psychic.

DOSAGE: 0.4 Gm. (N. F.), in pills.

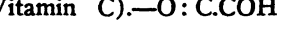
Asafetida Pills, Pilulae Asafoetidae, N. F.—Each pill contains asafetida, 0.2 Gm., and hard soap.

DOSAGE: 2 pills (N. F.).

Asafetida Tincture, Tinctura Asafoetidae, N. F.—Asafetida (20 per cent). Alcoholic content about 81 per cent.

DOSAGE: 1 cc. (N. F.).

Ascorbic Acid, Acidum Ascorbicum, U. S. P. (Vitamin C).

U. S. P. (Vitamin C).— 

White or slightly yellow crystals or powder. It is odorless, and on exposure to light it gradually darkens. In the dry state ascorbic acid is reasonably stable in the air, but in aqueous solution it rapidly deteriorates in the presence of air. One Gm. of ascorbic acid is soluble in 3 cc. of water and in about 30 cc. of alcohol.

ACTION AND USES: Ascorbic acid is an essential constituent of the diet. It is used in scurvy and in other conditions in which the diet is deficient in ascorbic acid or where there is interference with its absorption.

DOSAGE: 50 mg. (U. S. P.).

Ascorbic Acid Tablets, Tabellae Acidi Ascorbici, U. S. P. (Vitamin C Tablets).—The usual sizes contain 25 mg., 50 mg. and 100 mg.

Aspidium, Aspidium, U. S. P.—The rhizome and stipes of European aspidium (male fern) or American aspidium (marginal fern) which have retained their internal green color. Contains not less than 1.5 per cent of crude filicin.

ACTION AND USES: Used as a teniacide in the form of oleoresin.

Aspidium Oleoresin, Oleoresina Aspidii, U. S. P. (Male Fern Oleoresin).—Yields not less than 24 per cent of crude filicin.

DOSAGE: *Caution!* Single dose, 4 Gm. once a day, in capsules or in emulsion. Smaller doses are used for anemic or debilitated patients. The patient should be prepared by a light diet or fasting for twenty-four hours. The drug should be given early in the morning, preceded by a saline cathartic and followed in three hours by a saline laxative. Castor oil and other fixed oils should not be used in connection with aspidium oleoresin, as they favor the absorption of the active principle.

Atropine, Atropina, U. S. P.—An alkaloid usually obtained from Atropa Belladonna Linné and from species of Datura and Hyoscyamus (Fam. Solanaceae) or produced synthetically.

White crystals. Slightly soluble in water (1 in 460), in alcohol (1 in 2), in glycerin (1 in 27), in chloroform (1 in 1) and in ether (1 in 25). *Caution: Atropine is extremely poisonous. (U. S. P.)*

ACTION AND USES: Atropine and the related alkaloids paralyze the parasympathetic endings. They are used espe-

cially as mydriatics and cycloplegics, to relax bronchial spasm, suppress secretions, as in gastric hyperacidity, quicken the heart and regulate peristalsis.

DOSAGE: 0.4 mg. (U. S. P.).

Atropine Sulfate, Atropinae Sulfas, U. S. P.

White odorless powder or colorless crystals. Very soluble in water (1 in 0.5) and in alcohol (1 in 5). *Caution: Atropine sulfate is extremely poisonous. (U. S. P.)*

DOSAGE: 0.5 mg. (U. S. P.).

Atropine Sulfate Tablets, Tabellae Atropinae Sulfatis, U. S. P.—The usual sizes contain 0.12 mg., 0.3 mg., 0.4 mg., 0.5 mg., 0.6 mg and 1.2 mg.

Barbital, Barbitalum, U. S. P. (Diethylbarbituric Acid, Diethylmalonylurea, Barbitone).

Colorless or white crystals or powder, odorless, has a slightly bitter taste, stable in air, slightly soluble in water (1 in 130), soluble in alcohol (1 in 15).

ACTION AND USES: Small doses induce sleep with little or no other effect. Toxic doses cause a fall in temperature. It is a relatively safe hypnotic in small doses, but fatalities result from its unguarded use. It should be discontinued if skin eruptions occur.

DOSAGE: 0.3 Gm. (U. S. P.) in powder in hot milk half an hour before bed time; or as tablets, which should be crushed and taken with water.

Barbital Elixir, Elixir Barbitali, N. F.—Barbital (3.5 per cent) alcohol, and glycerin flavored with compound vanillin spirit and colored with caramel. Alcoholic content about 32.5 per cent.

DOSAGE: 4 cc. (N. F.).

Barbital Tablets, Tabellae Barbitali, U. S. P.—The usual size contains 0.3 Gm.

Barbital Sodium, Barbitalum Sodicum, U. S. P. (Soluble Barbital, Soluble Barbitone).—Contains about 89 per cent of barbital ($C_8H_{12}O_3N_2$).

A white, odorless powder, having a bitter taste, stable in air, freely soluble in water (1 in 5) and slightly soluble in alcohol.

ACTION AND USES: The same as those of barbital; it is absorbed somewhat more rapidly.

DOSAGE: 0.3 Gm. (U. S. P.), in powder in hot milk half an hour before bed time; or as tablets taken with water. It may be dissolved in water and administered by rectal injection.

Barbital Sodium Tablets, Tabellae Barbitali Sodici, U. S. P.—The usual size contains 0.3 Gm.

Barium Chloride, Barii Chloridum, N. F.—$BaCl_2.2H_2O$.

Caution: Barium Chloride is extremely poisonous.

Odorless, white or colorless crystals or white granules. Soluble in water (1 in 2.8) and in glycerin (1 in 8); insoluble in alcohol.

ACTION AND USES: Chiefly of use in veterinary medicine; sometimes employed for its cardiac action in the symptomatic treatment of Stokes-Adams syndrome, but the lack of uniformity of results and its toxicity militate against its internal use in human beings.

Barium Chloride Tablets, Tabellae Barii Chloridi, N. F.

DOSAGE: Horses, 2 Gm. (N. F.). Human beings, 30 mg. orally, well diluted, three to four times daily in cases of Stokes-Adams syndrome not controlled by epinephrine or ephedrine.

Barium Sulfate, Barii Sulfas, U. S. P.—*Caution: When Barium Sulfate is prescribed the title should always be written out in full to avoid confusion with the poisonous barium sulfide or sulfite. (U. S. P.).*

Fine, white, odorless, tasteless powder, insoluble in water, in organic solvents and in dilute acids and alkalies.

ACTION AND USES: It passes through the system unchanged, and, suspended in water, is used in taking roentgenograms of the stomach and of the intestines.

DOSAGE: For the Roentgen-Ray Examination of the Stomach: The patient is given 30 cc. of castor oil the evening before the examination. In the morning, 60 Gm. of barium sulfate is mixed with an ordinary portion of wheat-meal porridge, together with a little sugar and cream, and this is taken through the mouth.

For the Roentgen-Ray Examination of the Colon: an enema consisting of 473 cc. of acacia mucilage, 1.3 Kg. of condensed milk, and 237 Gm. of barium sulfate is warmed to body temperature and injected into the rectum from a height of 90 to 180 cm. The examination is made with a fluoroscope while the injection is passing into the rectum.

Beef, Caro

Beef Extract, Extractum Carnis, N. F.—Residue from evaporation of beef broth.

Beef, Iron and Wine, Caro, Ferrum et Vinum, N. F.—Contains, in each 100 cc., about 0.86 Gm. of iron in the form of ferric and ammonium citrate.

One average dose (8 cc.) contains 0.24 Gm. of beef extract and 0.4 Gm. of ferric ammonium citrate in distilled water, syrup, alcohol and sherry wine flavored with compound orange spirit.

ACTION AND USES: Stimulant and flavor; not a nutrient. The "wines" and elixirs, in general, are without therapeutic value and may be misused as beverages. The increased iron content over the original N. F. formula makes it feasible for iron medication, but with the disadvantage that the alcoholic content may be undesirable and the beef extractive unessential.

DOSAGE: 8 cc. (N. F.).

Belladonna Leaf, Belladonnae Folium, U. S. P. (Deadly Nightshade Leaf, Belladonna folium, P. I.).—Yields not less than 0.3 per cent of alkaloids of belladonna leaf.

ACTION AND USES: Those of the atropine and hyoscyamine which it contains.

DOSAGE: 0.06 Gm.

Belladonna Extract, Extractum Belladonnae, U. S. P. (Extractum Belladonnae Foliorum, Extractum Belladonnae, P. I.).—Belladonna Extract yields about 1.25 per cent of alkaloids. Two forms are official; pilular belladonna extract (leaf) and powdered belladonna extract (leaf).

DOSAGE: 15 mg. (U. S. P.).

Belladonna Leaf Fluidextract, Fluidextractum Belladonnae Folii, N. F.—Belladonna leaf (100 per cent), yielding about 0.3 per cent of alkaloids.

DOSAGE: 0.06 cc. (N. F.).

Belladonna Ointment, Unguentum Belladonnae, U. S. P. (Unguentum Belladonna, P. I.).—Pilular belladonna extract (10 per cent) in diluted alcohol and yellow ointment. It yields not less than 0.11 per cent of the alkaloids of belladonna leaf.

Belladonna Plaster, Emplastrum Belladonnae, N. F.—It contains extract of belladonna root and yields about 0.27 per cent of alkaloids of belladonna root. Spread so that each 100 sq. cm. contain 2.5 Gm. of belladonna plaster mass.

Belladonna Tincture, Tinctura Belladonnae, U. S. P. (Belladonna Leaf Tincture, Tinctura Belladonnae, P. I.).—Belladonna leaf (10 per cent) yielding about 0.03 per cent of alkaloids, in alcohol. Alcoholic content about 68 per cent.
DOSAGE: 0.6 cc. (U. S. P.).

Belladonna Root, Belladonnae Radix, N. F. (Deadly Nightshade Root).—Yields not less than 0.45 per cent of alkaloids of belladonna root.

ACTION AND USES: Those of the atropine and hyoscyamine which it contains.

DOSAGE: 45 mg.

Belladonna Root Fluidextract, Fluidextractum Belladonnae Radicis, N. F.—Belladonna root (100 per cent) yielding about 0.45 per cent of alkaloids. Alcoholic content about 68 per cent.
DOSAGE: 0.05 cc. (N. F.).

Belladonna Liniment, Linimentum Belladonnae, N. F.—Belladonna root fluidextract (about 95 per cent) and camphor (5 per cent). Alcoholic content about 65 per cent.
USES: A mildly analgesic and rubefacient application.

Bentonite, Bentonitum, U. S. P.—A colloidal, native, hydrated aluminum silicate.

A very fine, odorless, tasteless and practically colorless powder, free of grit or small granules. Insoluble in water, but swells to about eight times its volume when added to water and produces an opalescent suspension or paste. Insoluble in organic solvents and does not swell in these.

ACTION AND USES: Used in the preparation of Chalk Suspension.

Bentonite Magma, Magma Bentoniti, U. S. P.—Bentonite (5 per cent) in distilled water.

Benzaldehyde, Benzaldehydum, N. F.

A colorless liquid with a bitter-almond odor and a burning, aromatic taste. Slightly soluble in water; miscible with alcohol, ether and fixed or volatile oils.

ACTION AND USES: Flavoring agent.

DOSAGE: 0.03 cc. (N. F.).

Compound Benzaldehyde Elixir, Elixir Benzaldehydi Compositum, N. F.—Vanillin (0.1 per cent) and benzaldehyde (0.05 per cent) in orange flower water, alcohol, syrup and distilled water. Alcoholic content about 4 per cent.

Benzaldehyde Spirit, Spiritus Benzaldehydi, N. F.—Benzaldehyde (1 per cent) and alcohol (80 per cent) in distilled water. Alcoholic content about 74.5 per cent.

DOSAGE: 0.5 cc. (N. F.).

Benzoic Acid, Acidum Benzoicum, U. S. P.—$C_6H_5.COOH$.

White crystals, usually as scales or needles. It is odorless, or it may have a slight odor of benzaldehyde or benzoin. It is somewhat volatile at moderately warm temperatures and is freely volatile in steam. Soluble in water (1 in 275) and in alcohol (1 in 3). It is soluble in fixed and in volatile oils and is sparingly soluble in petroleum benzine.

ACTION AND USES: Mild antiseptic and diuretic.

DOSAGE: 1 Gm. best given in the form of soluble benzoates (see under Sodium Benzoate).

Benzoic and Salicylic Acid Ointment, Unquentum Acidi Benzoici et Salicylici, N. F. (Whitfield's Ointment).—Benzoic acid (12 per cent) and salicylic acid (6 per cent) in wool fat and white petrolatum.

ACTION AND USES: Antiseptic ointment.

Benzoin, Benzoinum, U. S. P.—A balsamic resin.

ACTION AND USES: Used locally as an antiseptic, stimulant and protective to promote healing, and in inhalations as an expectorant.

Benzoin Tincture, Tinctura Benzoini, U. S. P.—Benzoin (20 per cent) in alcohol. Alcoholic content about 79 per cent.

DOSAGE: 1 cc.

Compound Benzoin Tincture, Tinctura Benzoini Composita, U. S. P.—Benzoin (10 per cent), aloe (2 per cent), storax (8 per cent) and tolu balsam (4 per cent), in alcohol. Alcoholic content about 77 per cent.

USES: Protective and local stimulant, especially by steam inhalation.

DOSAGE: 2 cc.

Benzyl Alcohol, Alcohol Benzylicum, N. F. (Phenylcarbinol).—C_7H_8O. A colorless liquid having a faint, aromatic odor and burning taste; neutral to litmus paper. Miscible with alcohol, ether and chloroform; soluble in water (1 in 25).

ACTION AND USES: Local anesthetic; antipruritic and antiseptic.

DOSAGE: Aqueous solutions of 1 to 4 per cent are used for injection or topical application as a local anesthetic. Ointments containing 10 per cent or lotions of one-third part benzyl alcohol are antipruritic. Pure benzyl alcohol is decidedly antiseptic; lesser concentrations are preservative.

Benzyl Benzoate, Benzylis Benzoas, U. S. P.—$C_{14}H_{12}O_2$. —Contains not less than 99 per cent.

Clear, colorless, oily liquid with slight aromatic odor and a burning taste. Insoluble in water and in glycerin but miscible with alcohol, ether and chloroform.

ACTION AND USES: A volatile oil derived from balsams of tolu and Peru used mainly in lotions or soap solutions as a scabieticide.

Benzyl Benzoate Lotion, Lotio Benzylis Benzoatis, U. S. P.—Contains approximately 28 per cent of benzyl benzoate with triethanolamine and oleic acid in water.

DOSAGE: Applied topically, undiluted.

Saponated Benzyl Benzoate, Benzylis Benzoas Saponatus, U. S. P.—Contains approximately 102 per cent of benzyl benzoate with triethanolamine 2 per cent and oleic acid 8 per cent.

ACTIONS AND USES: Used in the preparation of the official lotion.

Benzalkonium Chloride, Benzalkonii Chloridum, U. S. P. (Alkylbenzyldimethyl Ammonium Chloride).—A mixture of the general formula, $C_6H_5CH_2N(CH_3)_2R\ Cl$, in which R has the character of a mixture of alkyl radicals from C_8H_{17} to $C_{18}H_{37}$; average molecular weight of the product is found to be 366.

White or yellowish white amorphous powder or gelatinous pieces, having an aromatic odor and bitter taste. Very soluble in water, alcohol and acetone; slightly soluble in benzene and nearly insoluble in ether.

ACTION AND USES: An amorphous powder mixture of alkyl dimethyl-benzylammonium chlorides used for the preparation of the official solution.

Benzalkonium Chloride Solution, Liquor Benzalkonii Chloridi, U. S. P.

ACTION AND USES: A cationic detergent and surface active emollient with disinfectant properties; effective as a topical antiseptic in solutions having concentrations ranging from 1:40,000 to 1:1,000. Its disinfectant action is opposed by the anionic detergent action of ordinary soap.

DOSAGE: Dilutions of 1:1,000 may be used on the unbroken skin; 1:5,000 for denuded areas and mucous membranes of the eye or vagina; 1:20,000 for irrigation of the urinary tract.

Bergamot Oil, Oleum Bergamottae, N. F.—A volatile oil. Freely soluble in alcohol (1 in 2).

ACTION AND USES: Flavoring agent.

Perfumed Spirit, Spiritus Odoratus, N. F. (Aqua Coloniensis, Cologne Water).—Oils of bergamot, lemon, rosemary, lavender and orange flowers in ethyl acetate, water and alcohol. Alcoholic content about 78 per cent.

Betanaphthol, Betanaphthol, U. S. P.—$C_{10}H_8O$.

Colorless or pale buff crystalline laminas or white or yellowish powder, with a faint phenol odor and a pungent taste. Only slightly soluble in water (1 in 1,000) and very soluble in alcohol (1 in 1).

ACTION AND USES: Antiseptic and parasiticide, somewhat more potent than phenol. Used in skin affections and as anthelmintic for hookworm.

DOSAGE: 0.12 Gm. (U. S. P.).

Rectified Birch Tar Oil, Oleum Betulae Empyreumaticum Rectificatum, N. F. (Oleum Rusci).—An oil obtained by the dry distillation of the bark and wood of white birch.

Freely soluble in dehydrated alcohol (1 in 3). Darkens and becomes unsuitable for use when stored in metal containers.

ACTION AND USES: Similar to tar; employed locally as a stimulant and antiseptic in the treatment of psoriasis and eczema.

Bismuth Hydroxide, Bismuthi Hydroxidum.

Bismuth Magma, Magma Bismuthi, N. F. (Milk of Bismuth, Bismuth Cream).—A suspension in water of bismuth hydroxide and bismuth subcarbonate, forming a thick, white opaque liquid. Yields about 5.5 per cent bismuth trioxide.

USES: Used in digestive disturbances like bismuth subcarbonate.

DOSAGE: 4 cc. (N. F.).

Bismuth Potassium Tartrate, Bismuthi Potassii Tartras, U. S. P. (Potassium Bismuth Tartrate, Potassium Bismuthyl Tartrate).—Equivalent to about 62 per cent bismuth.

White, odorless powder, having a sweet taste and darkening on exposure to light. Freely soluble in water (1 in 2) but insoluble in alcohol.

ACTION AND USES: Injected intramuscularly it is antisyphilitic and diuretic.

DOSAGE: Intramuscular injection, 0.1 Gm. (U. S. P.).

Bismuth Potassium Tartrate Injection, Injectio Bismuthi Potassii Tartratis, U. S. P.—A sterile solution of bismuth potassium tartrate in water for injection (aqueous) or as a sterile suspension in a suitable fixed oil (oil suspension). It contains an amount of bismuth equivalent to 62 per cent of the labeled amount of bismuth potassium tartrate.

Bismuth Subcarbonate, Bismuthi Subcarbonas, U. S. P. (Basic Bismuth Carbonate).—A basic bismuth carbonate yielding not less than 90 per cent bismuth trioxide.

White or pale yellowish white, odorless, tasteless powder. Insoluble in water or alcohol.

ACTION AND USES: Similar to those of other insoluble salts of bismuth as a protective and healing agent against wounds, diarrheas and so forth. It is to be preferred to the subnitrate for internal use.

DOSAGE: 1 Gm. (U. S. P.), in powders or in suspension.

Bismuth Subcarbonate Tablets, Tabellae Bismuthi Subcarbonatis, N. F.—Yield bismuth oxide equal to about 90 per cent of the stated amount of bismuth subcarbonate.

DOSAGE: 1 Gm. of bismuth subcarbonate (N. F.).

Bismuth Subgallate, Bismuthi Subgallas, N. F. (Basic Bismuth Gallate, Dermatol).—A basic bismuth gallate yielding when dried for three hours at 100 C. between 52 and 57 per cent bismuth trioxide.

Bright yellow, odorless, tasteless powder. Insoluble in water and in alcohol. Readily dissolved with decomposition by warm, moderately dilute hydrochloric, nitric or sulfuric acid; insoluble in very dilute mineral acids. It is readily dissolved by solutions of alkali hydroxides, forming a clear, yellow liquid, which rapidly assumes a deep red color.

ACTION AND USES: Similar to those of bismuth subcarbonate.

DOSAGE: 1 Gm. (N. F.).

Bismuth Subgallate Tablets, Tabellae Bismuthi Subgallatis, N. F.—Yield bismuth oxide equal to about 54 per cent of the stated amount of bismuth subgallate.

DOSAGE: 1 Gm. of bismuth subgallate (N. F.).

Bismuth Subnitrate, Bismuthi Subnitras, N. F. (Basic Bismuth Nitrate).—A basic bismuth nitrate of varying composition, yielding at least 79 per cent bismuth trioxide.

A heavy, white, slightly hygroscopic, almost tasteless powder. Practically insoluble in water and insoluble in alcohol.

ACTION AND USES: Somewhat more astringent than the subcarbonate.

DOSAGE: 1 Gm. (N. F.). Preferably administered as a powder.

Bismuth Paste, Pasta Bismuthi, N. F. (Beck's Bismuth Paste).—Bismuth subnitrate (30 per cent) in white wax, paraffin and white petrolatum.

ACTION AND USES: Used in wound cavities; should be employed cautiously, as it may give rise to poisoning.

Bismuth Subnitrate Tablets, Tabellae Bismuthi Subnitratis, N. F.—Yield bismuth oxide equal to about 79 per cent of the stated amount of bismuth subnitrate.

Bismuth Subsalicylate, Bismuthi Subsalicylas, U. S. P. (Basic Bismuth Salicylate).—A basic bismuth salicylate, of varying composition, yielding 62 to 66 per cent bismuth trioxide.

A white or nearly white amorphous or microcrystalline powder. It is odorless and stable in air. Practically insoluble in cold water or alcohol.

ACTION AND USES: Injected intramuscularly as an antisyphilitic. It is also used as a protective and an astringent.

DOSAGE: Gastrointestinal, 1 Gm.; antisyphilitic, by parenteral injection, 0.1 Gm. (U. S. P.).

Bismuth Subsalicylate Injection, Injectio Bismuthi Subsalicylatis, U. S. P.—A sterile suspension of bismuth subsalicylate in a suitable fixed oil. It contains an amount of bismuth equivalent to about 58 per cent of the labeled amount of bismuth subsalicylate, including all tolerances. The usual sizes contain 0.1 Gm. or 0.12 Gm. in 1 cc.

Boric Acid, Acidum Boricum, U. S. P. (Boracic Acid).—H_3BO_3.

Colorless, odorless scales of a somewhat pearly luster, crystals, or a white powder, slightly unctuous to the touch. Soluble in water (1 in 18) and in alcohol (1 in 18); freely soluble in glycerin (1 in 4).

ACTION AND USES: Mild antiseptic and mildly astringent to mucous membranes.

DOSAGE: A watery solution, ranging from 2 per cent to a saturated solution, is used in the treatment of conjunctivitis, cystitis and the like. Fatalities have resulted from accidentally swallowing the solution. Externally used as dusting powder.

Boric Acid Ointment, Unguentum Acidi Borici, U. S. P. (Boracic Acid Ointment).—Boric acid (10 per cent) in wool fat and white ointment.

Boric Acid Solution, Liquor Acidi Borici, N. F. (Saturated Boric Acid Solution).—About 5 per cent boric acid in distilled water.

ACTION AND USES: Usually used undiluted; for ophthalmic use may be diluted with an equal volume of sterile distilled water.

N. F. Antiseptic Solution, Liquor Antisepticus, N. F.—Boric acid (2.5 per cent), thymol, chlorthymol, eucalyptol, methyl salicylate, thyme oil and menthol in alcohol and distilled water.

USES: Needlessly complex aromatic mouthwash. Usually used undiluted.

Glycerite Boroglycerin, Glyceritum Boroglycerini, U. S. P.—Boric acid and glycerin representing 31 per cent boric acid.

Brandy, Spiritus Vini Vitis, U. S. P.—Alcoholic content about 51 per cent by volume.

An amber colored fluid, having a characteristic odor and taste and an acid reaction.

ACTION AND USES: Its action depends on the alcohol that it contains.

Brucine Sulfate, Brucinae Sulfas, N. F.—Small, white crystals or powder; odorless, with a bitter taste. Sparingly soluble in water (1 in 70) and in alcohol.

ACTION AND USES: Its action is qualitatively like that of strychnine, but it is much less potent.

DOSAGE: 2 mg. (N. F.)

Bryonia, Bryonia, N. F. (Bryony).—Root.

ACTION AND USES: Drastic resinous cathartic of doubtful value. Used in dropsies, pleurisy and neuralgia.

DOSAGE: 1 Gm. (N. F.)

Buchu, Buchu, N. F.—Leaves.

ACTION AND USES: At one time largely used as diuretic, especially in catarrhal cystitis. Value doubtful.

DOSAGE: 2 Gm. (N. F.)

Buchu Fluidextract, Fluidextractum Buchu, N. F.—Buchu (100 per cent). Alcoholic content about 75 per cent.

DOSAGE: 2 cc. (N. F.)

Buchu, Juniper and Potassium Acetate Elixir, Elixir Buchu Juniperi et Potassii Acetatis, N. F.—Buchu (15 per cent), juniper (7.5 per cent) and potassium acetate (5 per cent) in compound orange spirit, sucrose, alcohol and water. Alcoholic content about 36.5 per cent.

USES: An unnecessarily complex diuretic preparation.

DOSAGE: 4 cc. (N. F.)

Butacaine Sulfate, Butacainae Sulfas, U. S. P.—$(C_{18}H_{30}N_2O_2)_2.H_2SO_4$.

White, odorless, crystalline powder. Affected by light. Rapidly produces numbness when placed on the tongue. Dissolves slowly in less than its own weight of water at 25 C., the solution occurring more rapidly on heating. Very soluble in warm alcohol.

ACTION, USES AND DOSAGE: As an anesthetic to the eye, nose and throat it is usually used in 2 per cent solutions. In the eye, four instillations, three minutes apart, permit operative work within five minutes after the last instillation.

Butyl Aminobenzoate, Butylis Aminobenzoas, U. S. P. (Normal Butyl Aminobenzoate).

White crystalline powder without odor or taste. Soluble in water (1 in 7,000). Soluble in dilute acids, in alcohol and in fatty oils. Slowly hydrolyzed when boiled with water.

ACTION AND USES: It is a slow but persisting local anesthetic suitable for topical application to ulcers, wounds and mucous surfaces.

DOSAGE: It is used as a dusting powder or in the form of troches, ointments or suppositories, or in a fatty oil.

Cacao, Cacao, N. F. (Cocoa).

Odor and taste chocolate-like, free from sweetness.

ACTION AND USES: Beverage and flavor.

Cacao Syrup, Syrupus Cacao, N. F. (Cocoa Syrup, Chocolate-flavored Syrup).—Cacao (17.5 per cent), vanilla tincture (5 per cent), gelatin (1 per cent) and sucrose (80 per cent) in distilled water.

Caffeine, Caffeina, U. S. P.—Trimethylxanthine, an alkaloid obtained from coffee and tea.

White, silky, efflorescent needles, odorless and bitter. Sparingly soluble in water (1 in 50) and in alcohol (1 in 75).

ACTION AND USES: Diuretic; cardiac, respiratory and psychic stimulant. Used in poisoning by narcotic drugs and, with other analgesics, for the relief of headache.

DOSAGE: 0.2 Gm. (U. S. P.), in capsules.

Citrated Caffeine, Caffeina Citrata, U. S. P.—Caffeine and citric acid in equal parts.

White, odorless powder, with a slightly bitter, acid taste.

DOSAGE: 0.3 Gm. (U. S. P.), in solution or capsules. Its acidity renders it unsuitable for hypodermic administration.

Citrated Caffeine Tablets, Tabellae Caffeinae Citratae, N. F.—Yield anhydrous caffeine equal to 45 to 55 per cent of the stated amount of citrated caffeine.

Caffeine and Sodium Benzoate, Caffeina et Sodii Benzoas, U. S. P. (Caffeine with Sodium Benzoate, Caffeine Sodio-Benzoate).—Caffeine and sodium benzoate about equal parts.

White, odorless powder, with a slightly bitter taste. Freely soluble in water (1 in 1.2) and soluble in alcohol (1 in 30).

ACTION AND USES: The form of caffeine usually employed for hypodermic administration, since it is freely soluble.

DOSAGE: Oral or intramuscular, 0.5 Gm. (U. S. P.).

Caffeine and Sodium Benzoate Injection, Injectio Caffeinae et Sodii Benzoatis, U. S. P.—A sterile solution in water for injection. It contains an amount of anhydrous caffeine equivalent to 48 per cent and an amount of sodium benzoate equivalent to 51 per cent of the labeled amount of caffeine and sodium benzoate, including all tolerances. The usual sizes contain 0.25 Gm. and 0.5 Gm. in 2 cc.

Caffeine and Sodium Benzoate Tablets, Tabellae Caffeinae et Sodii Benzoatis, N. F.—Yield anhydrous caffeine equal to about 48 per cent of the stated amount of caffeine with sodium benzoate.

Caffeine and Sodium Salicylate, Caffeina et Sodii Salicylas, N. F.—Represents equal parts of caffeine and sodium salicylate.

White, odorless powder. Freely soluble in water (1 in 2).

DOSAGE: 0.2 Gm. (N. F.)

Calamine, Calamina, U. S. P.—Zinc oxide containing a small amount of ferric oxide.

A pink powder. Insoluble in water but dissolves almost completely in mineral acids.

ACTION AND USES: Protective, similar to zinc oxide, over which it has no therapeutic advantage.

Calamine Liniment, Linimentum Calaminae, N. F.—Prepared calamine (8 per cent) and zinc oxide (8 per cent) in an emulsion of olive oil and calcium hydroxide solution.

Calamine Lotion, Lotio Calaminae, U. S. P.—Prepared calamine (8 per cent), zinc oxide (8 per cent), glycerin (2 per cent) and bentonite magma (40 per cent) in calcium hydroxide solution.

Phenolated Calamine Lotion, Lotio Calaminae Phenolata, N. F. (Compound calamine Lotion).—Calamine lotion with 1 per cent liquefied phenol.

Calamine Ointment, Unguentum Calaminae, N. F. (Unguentum Calaminae, Turner's Cerate).—Prepared calamine (17 per cent) in yellow wax, wool fat and petrolatum.

Calamus, Calamus, N. F. (Sweetflag).—Dried rhizome.

ACTION AND USES: Aromatic bitter.

DOSAGE: 3 Gm.

Calcium Bromide, Calcii Bromidum, N. F.—Hydrated calcium bromide contains about 89 per cent $CaBr_2$.

A white, odorless, deliquescent granular salt. Very soluble in water (1 in 0.7) and freely soluble in alcohol (1 in 1.3). Incompatible with alkali carbonates and phosphates.

ACTION AND USES: Similar to, but more irritant than, sodium bromide.

DOSAGE: 1 Gm. (N. F.), preferably administered in aqueous solutions. It is too deliquescent for use in powder.

Precipitated Calcium Carbonate, Calcii Carbonas Praecipitatus, U. S. P. (Precipitated Chalk.)—$CaCO_3$.

A fine, white odorless, tasteless powder. Practically insoluble in water and insoluble in alcohol. Decomposed by acids with evolution of carbon dioxide.

ACTION AND USES: Antacid in hyperchlorhydria and diarrhea; largely used as a basis for tooth powder.

DOSAGE: 1 Gm. (U. S. P.), as powder or as a suspension in liquid.

N. F. Dentifrice, Dentifricium, N. F. (N. F. Tooth-Powder).—Hard soap and precipitated chalk, sweetened with soluble saccharin and flavored with volatile oils.

Calcium Carbonate Tablets, Tabellae Calcii Carbonatis, N. F.

Calcium Chloride, Calcii Chloridum, U. S. P.—Hydrated calcium chloride (75 to 81 per cent $CaCl_2$).

White hard, deliquescent. odorless masses or granules, with a sharp, saline taste. Freely soluble in water (1 in 1.2) and soluble in alcohol (1 in 10).

ACTION AND USES: Used to restore the normal calcium content of the blood and to increase the acidity of the urine. Its value is doubtful in inflammatory conditions of the skin and mucous membranes (urticaria, serum-rashes and hay-fever).

DOSAGE: 1 Gm., in solution.

Calcium Chloride Ampuls, Ampullae Calcii Chloridi, N. F.—Contain a sterile solution of calcium chloride in ampul water, and yield anhydrous calcium chloride, $CaCl_2$, equal to about 75 per cent of the labeled amount of calcium chloride, $CaCl_2.2H_2O$.

Calcium Gluconate, Calcii Gluconas, U. S. P.—$Ca(C_6H_{11}O_7)_2.H_2O$.

A white, odorless, tasteless, crystalline powder. Slowly soluble in water (1 in 30), and insoluble in alcohol.

ACTION AND USES: Restores normal calcium content of the blood in calcium deficiency; has the advantage over the chloride of causing less pain when injected intramuscularly. Intramuscular injection has caused muscle necrosis in children.

DOSAGE: Oral 5 Gm. Intravenous 1 Gm. (U. S. P.).

Calcium Gluconate Injection, Injectio Calcii Gluconatis, U. S. P.—A sterile solution of calcium gluconate in water for injection. The usual size contains 1 Gm. in 10 cc.

Calcium Gluconate Tablets, Tabellae Calcii Gluconatis, N. F.—

ACTION AND USES: Mainly to supplement the diet in calcium deficiency or to combat latent hypocalcemic tetany. Supplies about 13 per cent calcium.

DOSAGE: 5 Gm. of calcium gluconate (N. F.); tablets usually available contain 0.5 and 1 Gm.

Calcium Glycerophosphate, Calcii Glycerophosphas, N. F.—$CaC_3H_5(OH)_2PO_4$.

White, odorless, almost tasteless powder. Sparingly soluble in water (1 in 50) and insoluble in alcohol.

ACTION AND USES: Formerly used in neurasthenias, to improve the nutrition of the nervous system. There is no evidence that it has any value in such conditions.

DOSAGE: 0.3 Gm. (N. F.), in solution.

Calcium and Sodium Glycerophosphates Elixir, Elixir Calcii et Sodii Glycerophosphatum, N. F. (Glycerophosphates Elixir). — Sodium glycerophosphate (1.8 per cent), calcium glycerophosphate (0.9 per cent) and phosphoric acid (0.8 per cent) in glycerin, aromatic elixir and distilled water. Alcoholic content about 6 per cent.

USES: An irrational "tonic" mixture.

DOSAGE: 4 cc. (N. F.).

Calcium Hydroxide, Calcii Hydroxidum, U. S. P. (Slaked Lime).—$Ca(OH)_2$.

A soft, white, crystalline powder, with an alkaline, slightly bitter taste. Slightly soluble in water (1 in 630) but insoluble in alcohol.

ACTION AND USES: Antacid; used chiefly in the form of the solution.

Lime Liniment, Linimentum Calcis, N. F. (Carron Oil).—Calcium hydroxide solution (50 per cent) and linseed oil.

ACTION AND USES: Topical application, used especially for superficial burns, but it forms a nidus for the development of bacteria.

Calcium Hydroxide Solution, Liquor Calcii Hydroxidi, U. S. P. (Liquor Calis, Lime Water). $Ca(OH)_2$ (about 0.15 per cent) in aqueous solution.

A clear, colorless, odorless liquid with a sweet alkaline taste.

DOSAGE: 15 cc. (U. S. P.).

Sulfurated Lime Solution, Liquor Calcis Sulfuratae, N. F. (Vleminckx' Solution, Vleminckx' Lotion).—A solution of calcium polysulfides and calcium thiosulfate produced by boiling together lime, sublimed sulfur and water.

USES: Depilatory, usually diluted with 9 parts of water for external use.

Calcium Hypophosphite, Calcii Hypophosphis, N. F.—$Ca(H_2PO_2)_2$.

Colorless crystals or white powder, odorless and having a nauseous, bitter taste. Freely soluble in water (1 in 6.5) and insoluble in alcohol. *Caution should be observed in compounding Calcium Hypophosphite with other substances, as an explosion may occur if it is triturated or heated with nitrates, chlorates or other oxidizing agents (N. F.).*

ACTION AND USES: The hypophosphites were introduced as of special value in tuberculosis; later they were used as general reconstructive tonics, but there is no reliable evidence that the hypophosphite radical has any value. Calcium hypophosphite must be regarded merely as a means of administering calcium.

DOSAGE: 0.5 Gm. (N. F.), in syrup.

Hypophosphites Syrup, Syrupus Hypophosphitum, N. F.—Calcium hypophosphite (3.5 per cent), potassium hypophosphite and sodium hypophosphite (each 1.8 per cent) and hypophosphorus acid (0.1 per cent) in glycerin, dextrose and distilled water. *The Syrup should not be dispensed if brownish in color.*

DOSAGE: 8 cc. (N. F.).

Compound Hypophosphites Syrup, Syrupus Hypophosphitum Compositus, N. F.—Calcium hypophosphite (3.5 per cent), potassium hypophosphite and sodium hypophosphite (each 1.75 per cent), ferric hypophosphite and manganese hypophosphite (each 0.22 per cent), quinine (0.11 per cent), strychnine (0.01 per cent), sodium citrate (0.37 per cent), and hypophosphorus acid (0.5 per cent) in glycerin and dextrose with distilled water to make a sufficient quantity. *The Syrup should not be dispensed if brownish in color.*

USES: Antiquated, complex and irrational "tonic."

DOSAGE: 8 cc. (N. F.).

Calcium Iodobehenate, Calcii Iodobehenas, U. S. P. (Calcium Monoiodobehenate).—Consists mainly of calcium monoiodobehenate $[(C_{21}H_{42}ICOO)_2Ca]$. The dried salt contains not less than 23.5 per cent iodine.

A white or yellowish powder, unctuous to the touch; odorless or nearly so, insoluble in water, very slightly soluble in alcohol and in ether and freely soluble in warm chloroform.

ACTION AND USES: It is used as a substitute for sodium iodide and potassium iodide especially for goiter prophylaxis.

DOSAGE: 0.5 Gm. (U. S. P.), in powder or in capsules.

Calcium Lactate, Calcii Lactas, U. S. P.—$Ca(C_3H_5O_3)_2 5H_2O$.

White, almost odorless, practically tasteless masses or powder. Soluble in water (1 in 20) and almost insoluble in alcohol.

ACTION AND USES: Used for the characteristic action of calcium; less irritating and therefore better adapted to hypodermic administration than calcium chloride.

DOSAGE: 1 Gm. (U. S. P.), in solution.

Calcium Lactate Tablets, Tabellae Calcii Lactatis, N. F.

Calcium Levulinate, Calcii Levulinas, N. F.—$(CH_3CO(CH_2)_2COO)_2Ca.2H_2O$. The hydrated calcium salt of levulinic acid containing not less than 97.5 per cent calcium levulinate when dried at 105 C.

White, crystalline or amorphous powder with a faint, burnt sugar-like odor and a bitter, salty taste. Freely soluble in water; slightly soluble in alcohol; insoluble in ether and in chloroform.

ACTION AND USES: Used in the treatment of calcium deficiency; principally in solution by parenteral injection for hypocalcemia. It shares the advantage of the gluconate in that it is less irritating than the chloride for intramuscular injection, but it should likewise be restricted to intravenous administration for injection of infants or children. Supplies about 9 per cent calcium.

Calcium Levulinate Ampuls, Ampullae Calcii Levulinatis, N. F. (Calcium Levulinate Injection).

DOSAGE: 1 Gm. of calcium levulinate (N. F.), usually available in 10 per cent solution.

Calcium Mandelate, Calcii Mandelas, U. S. P.—$(C_6H_5.CHOH.COO)_2Ca$.

White, odorless powder. Slightly soluble in cold water and insoluble in alcohol. One Gm. dissolves in about 80 cc. of boiling water.

ACTION AND USES: Urinary antiseptic; see Mandelic Acid.

DOSAGE: 4 Gm. (U. S. P.).

Dibasic Calcium Phosphate, Calcii Phosphas Dibasicus, U. S. P. (Dicalcium Orthophosphate).—$CaHPO_4.2H_2O$.—Contains an amount of calcium equivalent to not less than 98 per cent of $CaHPO_4.2H_2O$.

ACTION AND USES: Relatively insoluble calcium compound principally used as an oral dietary supplement of calcium to meet increased demands for that element in pregnancy and lactation or in childhood. It contains about 43 per cent calcium. It may also serve as a source of phosphorus, but to a lesser degree than tribasic calcium phosphate.

DOSAGE: 1 Gm. (U. S. P.); available in tablet form.

Tribasic Calcium Phosphate, Calcii Phosphas Tribasicus, N. F. (Precipitated Calcium Phosphate).—Contains not less than 90 per cent $Ca_3(PO_4)_2$.

A white, odorless and tasteless powder, permanent in the air. It is almost insoluble in water but dissolves readily in diluted mineral acids. It is insoluble in alcohol.

ACTION AND USES: An alkali of mild action which may be used to neutralize acid of the stomach. Being slowly soluble, it has little tendency to cause excessive alkalinity of the blood and tissues. It exerts the actions of other calcium salts and may serve as a source of phosphorus.

DOSAGE: 1 Gm. (N. F.).

Calumba, Calumba, N. F. (Colombo)—The root.

ACTION AND USES: Used as a simple bitter and stomachic. It is free from tannin.

DOSAGE: 1 Gm. (N. F.); usually given in the form of the tincture.

Camphor, Camphora, U. S. P.—A volatile solid obtained from the camphor tree or produced synthetically.

Tough white, translucent or colorless crystalline masses with a pungent odor and taste. Slightly soluble in water (1 in 800), freely soluble in alcohol (1 in 1), in chloroform (1 in 0.5) and in ether (1 in 1). It is freely soluble in fixed and volatile oils.

ACTION AND USES: Used hypodermically to stimulate the circulation and respiration in collapse, but it is of doubtful value. Locally, applied as a mild irritant and antiseptic.

DOSAGE: By mouth or hypodermic injection, 0.2 Gm. (U. S. P.). A 10 per cent solution in oil is used for hypodermic administration.

Camphor Ampuls, Ampullae Camphorae, N. F.—(Camphor in Oil Ampuls).

Camphor Liniment, Linimentum Camphorae, U. S. P. (Camphorated Oil.)—Camphor (20 per cent) in cottonseed oil.

USES: Mild counterirritant. *Caution—this preparation is not intended for hypodermic use (U. S. P.).*

Camphor Ointment, Unguentum Camphorae, N. F.—Camphor (22 per cent) in white wax and lard.

Camphor Spirit, Spiritus Camphorae, U. S. P.—Camphor (10 per cent) in alcohol. Alcoholic content about 85 per cent.

DOSAGE: 1 cc. (U. S. P.).

Camphor Water, Aqua Camphorae, U. S. P. A saturated solution of camphor in distilled water.

DOSAGE: 10 cc.

Monobromated Camphor, Camphora Monobromata, N. F.—$C_{10}H_{15}OBr$.

Colorless needles, scales or powder; mild odor and taste of camphor. Freely soluble in alcohol (1 in 6.5) but practically insoluble in water.

ACTION AND USES: Variously stated to have the stimulant action of camphor and the sedative action of bromides. Probably useless.

DOSAGE: 0.125 Gm. (N. F.).

Cantharides, Cantharis, N. F. (Spanish Flies, Russian Flies, Pulvis Cantharidis, P. I.).—Dried beetles, yielding not less than 0.6 per cent cantharidin.

Caution: Cantharides with an ammoniacal odor must not be used.

ACTION AND USES: Externally, rubefacient and vesicant. Internally, genitourinary irritant, often producing serious nephritis. Its internal use is not justified.

Cantharides Cerate, Ceratum Cantharidis, N. F. (Blistering Cerate).—Cantharides (35 per cent) with turpentine oil, glacial acetic acid, yellow wax, rosin and benzoinated lard.

Cantharides Tincture, Tinctura Cantharidis, N. F. (Tinctura Cantharidis, P. I.).—Cantharides (10 per cent), in glacial acetic acid and alcohol. Alcoholic content about 81 per cent.

DOSAGE: 0.1 cc. (N. F.). Its internal use is not advisable.

Capsicum, Capsicum, N. F. (Cayenne Pepper).— Dried ripe fruit.

ACTION AND USES: Carminative and rubefacient; also stomachic, especially in alcoholic gastritis (as the tincture).

DOSAGE: 60 mg. (N. F.).

Capsicum Ointment, Unguentum Capsici, N. F.—Oleoresin of capsicum (5 per cent) in a mixture of paraffin and petrolatum.

Capsicum Oleoresin, Oleoresina Capsici, N. F.—Highly irritant.

DOSAGE: 15 mg. (N. F.).

Capsicum Tincture, Tinctura Capsici, N. F.—Capsicum (10 per cent) in alcohol and distilled water. Alcoholic content about 83 per cent.

DOSAGE: 0.5 cc. (N. F.).

Caramel, Caramel, N. F. (Burnt Sugar Coloring).

A dark brown, syrupy, somewhat bitter liquid. Freely soluble in water and in diluted alcohol.

ACTION AND USES: Used in pharmacy as a brown coloring agent.

Caraway, Carum, U. S. P. (Caraway Fruit, Caraway Seed).—Dried ripe fruit.

ACTION AND USES: Aromatic carminative, similar to anise and fennel.

DOSAGE: 1 Gm.

Caraway Oil, Oleum Cari, N. F.—A volatile oil.

Soluble (1 in 8) in 80 per cent alcohol.

ACTION AND USES: Aromatic carminative.

DOSAGE: 0.1 cc. (N. F.).

Carbachol, Carbacholum, U. S. P. (Carbamylcholine Chloride).—$NH_2COOCH_2CH_2N(CH_3)_3Cl$.

White or faintly yellow crystals or crystalline powder. It is odorless and hygroscopic, and its solutions are neutral to litmus paper. Soluble in water (1 in 1) and in alcohol (1 in 50); almost insoluble in chloroform and in ether.

ACTION AND USES: A synthetic parasympathomimetic agent more stable than methacholine chloride, but possesses nicotinic actions not shared by the latter and exerts more pre-

dominant action on the gastrointestinal tract; its toxic effects are less promptly counteracted by atropine. It has been used mainly in the control of peripheral vascular disease and postoperative urinary retention, administered by injection. Its oral use gives less dependable action.

DOSAGE: Oral, 2 mg. Subcutaneous, 0.25 mg. (U. S. P.).

Carbachol Injection, Injectio Carbacholi, U. S. P.

Caution: This preparation should not be injected intravenously.

DOSAGE: Subcutaneous, 0.25 mg. of carbachol (U. S. P.), usually available in ampuls each containing 0.25 mg. in 1 cc.

Carbachol Tablets, Tabellae Carbacholi, U. S. P.

DOSAGE: 2 mg. of carbachol (U. S. P.), usually available in tablets which contain that amount of the drug.

Carbarsone, Carbarsonum, U. S. P.—$C_7H_9AsN_2O_4$.—Contains from 28.1 to 28.8 per cent of arsenic.

White, almost odorless powder, having a slightly acid taste. Slightly soluble in water and alcohol.

ACTION AND USES: Used in the treatment of amebiasis.

DOSAGE: 0.2 Gm. (U. S. P.).

Carbarsone Tablets, Tabellae Carbarsoni, N. F.

DOSAGE: 0.2 Gm. of carbarsone (N. F.) usually available in tablets containing 50 mg. and 0.25 Gm.

Carbon Dioxide, Carbonei Dioxidum, U. S. P. (Carbonic Acid Gas).

A heavy, odorless, colorless gas. Soluble in water.

ACTION AND USES: Carbon dioxide regulates respiration; excessive amounts depress the medullary centers. It is used as a respiratory stimulant; it is added to inspired air in anesthesia, or to oxygen to stimulate respiration.

Carbon Tetrachloride, Carbonei Tetrachloridum, N. F.—CCl_4

A clear, noninflammable, colorless liquid with a characteristic odor resembling that of chloroform. It is very slightly soluble in water (1 in 2,000); miscible with alcohol and various solvents.

ACTION AND USES: It is used widely in the treatment of hookworm disease; it is less useful against other intestinal parasites. Like the other potent anthelmintics, it occasionally gives rise to toxic effects and should be used with caution, especially in those addicted to alcohol, those suffering from calcium deficiency in the blood and in patients heavily infested with ascarides. Headache is sometimes induced. A mild laxative is given to constipated patients on the day previous to treatment. Oils and fats should be avoided.

DOSAGE: *Caution!* As an anthelmintic for adults, single dose, 2.5 cc. (N. F.). Not to be repeated within three weeks.

Carbon Tetrachloride Capsules, Capsulae Carbonei Tetrachloridi.

Carbromal, Carbromalum, N. F. (Bromdiethylacetylurea).
A white, crystalline, odorless powder, very slightly soluble in water (1 in 3,000), soluble in alcohol (1 in 18).
ACTION AND USES: Small doses induce restful sleep with no unpleasant effects; it is employed especially in neurasthenia, hysteria, chorea and mental diseases.
DOSAGE: 0.5 Gm. (N. F.).

Cardamom Seed, Cardamomi Semen, U. S. P.—Dried ripe seed recently removed from the capsules.

ACTION AND USES: Used as flavor and carminative. Frequently added to purgatives, as in the compound colocynth extract, with the object of diminishing griping.

Compound Cardamom Elixir, Elixir Cardamomi Compositum, N. F.—Compound cardamom spirit (1 per cent) in alcohol, syrup and distilled water. Alcoholic content about 8 per cent.

Cardamom Oil, Oleum Cardamomi, N. F.—A volatile oil. Soluble (1 in 5) in 70 per cent alcohol.
ACTION AND USES: Aromatic flavoring agent.

Compound Cardamom Spirit, Spiritus Cardamomi Compositus, N. F.—Cardamom oil 10 per cent, anethol 0.5 per cent, orange oil 10 per cent, cinnamon oil 1 per cent, caraway oil 0.05 per cent and clove oil 0.5 per cent in alcohol. Alcoholic content about 71 per cent.
USES: Flavoring agent.

Compound Cardamom Tincture, Tinctura Cardamomi Composita, U. S. P.—Cardamom seed (2 per cent), cinnamon, caraway and cochineal in diluted alcohol and glycerin. Alcoholic content about 45 per cent.

DOSAGE: 4 cc. (U. S. P.).

Carmine, Carminum, N. F.—From cochineal.
ACTION AND USES: Used in pharmacy as a red coloring agent.
Carmine Solution, Liquor Carmini, N. F.—Carmine 6.5 per cent in dilute solution of ammonia, glycerin and water.

Cascara Sagrada, Cascara Sagrada, U. S. P. (Rhamnus Purshiana).—A dried bark aged one year before use.

ACTION AND USES: Laxative, acting mainly on the colon. Widely used for habitual constipation. Has little tendency to produce secondary constipation.

DOSAGE: 1 Gm.

Cascara Sagrada Elixir, Elixir Cascarae Sagradae, N. F.—Aromatic cascara sagrada fluidextract (50 per cent) and glycyrrhiza syrup. Alcoholic content about 12 per cent.
DOSAGE: 4 cc. (N. F.).

Cascara Sagrada Extract, Extractum Cascarae Sagradae, U. S. P. (Rhamnus Purshiana Extract, Powdered Cascara Sagrada Extract).—One Gm. extract represents 3 Gm. cascara sagrada.

DOSAGE: 0.3 Gm. (U. S. P.).

Cascara Sagrada Fluidextract, Fluidextractum Cascarae Sagradae, U. S. P. (Rhamnus Purshiana Fluidextract).—Cascara sagrada (100 per cent). Alcoholic content about 18 per cent.

DOSAGE: 1 cc. (U. S. P.).

Aromatic Cascara Sagrada Fluidextract, Fluidextractum Cascarae Sagradae Aromaticum, U. S. P. (Aromatic Rhamnus Purshiana Fluidextract).—Cascara (100 per cent) treated with magnesium oxide, sweetened and flavored to lessen its bitter taste. Alcoholic content about 18 per cent.

DOSAGE: 2 cc. (U. S. P.).

Cascara Sagrada Extract Tablets, Tabellae Cascarae Sagradae Extracti, U. S. P. (Cascara Tablets).—The usual sizes contain 0.12 Gm., 0.2 Gm. and 0.3 Gm. of the extract.

Castor Oil, Oleum Ricini, U. S. P.—A fixed oil from seed.

Caster oil is a pale yellowish or almost colorless viscid liquid having a faint mild odor and a bland, slightly acrid and usually nauseating taste. Dissolves in alcohol and is miscible with dehydrated alcohol, glacial acetie acid, chloroform and ether.

ACTION AND USES: Effective and prompt nauseating and griping cathartic, but its use is likely to be followed by constipation. Formerly used as an initial purge in acute diarrheas.

DOSAGE: 15 cc. (U. S. P.).

Aromatic Caster Oil, Oleum Ricini Aromaticum, N. F.—Caster oil flavored with saccharin, cinnamon oil, clove oil, vanillin, coumarin and alcohol.

USES: Less disagreeable than castor oil.

DOSAGE: 15 cc. (N. F.).

Castor Oil Capsules, Capsulae Olei Ricini, N. F.

DOSAGE: 15 cc. of castor oil (N. F.), usually available in capsules containing castor oil 0.6 cc., 1 cc., 1.25 cc., 2.5 cc. and 5 cc.

Cataria, Cataria, N. F. (Catnip, Catmint).—Dried leaves and flowering tops.

ACTION AND USES: Aromatic carminative.

DOSAGE: 4 Gm. (N. F.).

Cataria and Fennel Elixir, Elixir Catariae et Foeniculi, N. F. (Catnip and Fennel Elixir).—Cataria (10 per cent) and sodium bicarbonate 1.8 per cent) in a mixture of alcohol, sucrose, and distilled water flavored with fennel and spearmint. Alcoholic content about 19 per cent.

DOSAGE: For infants, 0.5 cc. (N. F.).

Caulophyllum, Caulophyllum, N. F. (Blue Cohosh).—Dried rhizome and roots.

ACTION AND USES: Said to be diuretic and emmenagogue but evidence not adequate.

DOSAGE: 0.5 Gm. (N. F.).

Cedar Leaf Oil, Oleum Cedri Folii, U. S. P.—(Arbor Vitae Oil, Thuja Oil).—The volatile oil from the fresh leaves. It contains not less than 60 per cent of ketones, calculated as thujone ($C_{10}H_{16}O$).

Colorless or yellow liquid, having the characteristic odor of arbor vitae. Soluble in 3 volumes of 70 per cent alcohol.

ACTION AND USES: No established therapeutic use.

Cerium Oxalate, Cerii Oxalas, N. F.—A mixture of the oxalates of cerium, neodymium, praseodymium, lanthanum and other associated elements.

A fine white or slightly pink powder, without odor or taste. Insoluble in water and in alcohol.

ACTION AND USES: Formerly used against emesis but of no value.

DOSAGE: 0.2 Gm. (N. F.).

Cetyl Alcohol, Alcohol Cetylicum, N. F.—$C_{16}H_{34}O$.—A mixture of solid alcohols, chiefly cetyl alcohol ($CH_3(CH_2)_{14}CH_2OH$).

Unctuous, white flakes or granules having a faint characteristic odor and a bland, mild taste. Dissolves in alcohol and in ether; insoluble in water. Melts between 45 and 48 C.

ACTION AND USES: Mainly used as a pharmaceutic aid in compounding ointments where it may act as an emulsion stabilizer; also has emollient properties.

Prepared Chalk, Creta Praeparata, U. S. P. (Drop Chalk).—A native calcium carbonate.

White, amorphous, odorless, tasteless powder. Almost insoluble in water, insoluble in alcohol. Decomposed and dissolved by dilute acids.

ACTION AND USES: Used internally as a mild alkali, as antacid and against diarrhea.

DOSAGE: 1 Gm. (U. S. P.), as a powder or in suspension.

Chalk Mixture, Mistura Cretae, U. S. P.—Prepared chalk (6 per cent), saccharin sodium, bentonite, cinnamon water (40 per cent) and distilled water. *Caution: This preparation must not be dispensed unless it has been recently prepared.*

DOSAGE: 15 cc. (U. S. P.).

Aromatic Chalk Powder, Pulvis Cretae Aromaticus, N. F.—Cinnamon, myristica, clove, cardamom seed, prepared chalk and sucrose.

DOSAGE: 2 Gm. (N. F.).

Compound Chalk Powder, Pulvis Cretae Compositus, N. F.—Prepared chalk (30 per cent), with acacia and sucrose.

DOSAGE: 2 Gm. (N. F.).

Activated Charcoal, Carbo Activatus, U. S. P.—Charcoal treated to increase its adsorptive power.

Note: When Carbo Ligni is prescribed activated charcoal may be dispensed.—U. S. P.

A fine, black, odorless, tasteless powder free from gritty matter.

ACTION AND USES: Adsorbent of gases and dissolved substances. Used internally against digestive disorders and vegetable poisons but of doubtful value. Locally employed as a deodorant, for fetid ulcers, usually in the form of a poultice.

DOSAGE: 1 Gm., in powder or suspended in water.

Purified Animal Charcoal, Carbo Animalis Purificatus, N. F.—Charcoal prepared from bone and purified by treating with hydrochloric acid and water.

ACTION AND USES: Adsorbent of gases; chiefly used in pharmacy.
DOSAGE: 0.3 Gm. (N. F.).

Chaulmoogra Oil, Oleum Chaulmoograe, N. F. (Hydnocarpus Oil).
A yellow or brownish yellow liquid or, at a temperature below about 25 C., a whitish, soft solid; it has a characteristic odor and an acrid taste; it is partially soluble in alcohol and soluble in chloroform and ether.

ACTION AND USES: The oil contains optically active unsaturated fatty acids, chiefly chaulmoogric and hydnocarpic acids in the form of glycerides. It is used for the relief of symptoms in leprosy but authorities differ concerning its value. Used most commonly in the form of ethyl chaulmoograte.

DOSAGE: 1 cc. (N. F.).

Ethyl Chaulmoograte, Aethylis Chaulmoogras, N. F.
A clear, pale yellow liquid, having a slightly fruity odor; insoluble in water but miscible with alcohol, chloroform and ether.

ACTION AND USES: It has the action of chaulmoogra oil, over which it has the advantage of greater uniformity and, probably, that of being better tolerated.

DOSAGE: Oral or intramuscular: 2 cc. (N. F.).

Chenopodium Oil, Oleum Chenopodii, N. F. (American Wormseed Oil).—A volatile oil. It contains not less than 65 per cent ascaridol.
Freely soluble in alcohol (1 in 8).

ACTION AND USES: Anthelmintic, especially for roundworms and hookworms.

DOSAGE: *Caution! As an anthelmintic for adults, single dose, 1 cc.* (N. F.) Even small doses may become toxic when repeated at intervals of several days.

Chenopodium Oil Capsules, Capsulae Olei Chenopodii, N. F. (American Wormseed Oil Capsules).—The usual sizes contain 0.3 cc. and 0.6 cc.

Cherry, Prunus Cerasus.

ACTION AND USES: The syrup constitutes a pleasing vehicle.

Cherry Juice, Succus Cerasi, N.F.—Liquid expressed from the fresh ripe fruit.
Clear liquid with an aromatic, characteristic odor, and a sour taste. The color of the freshly prepared juice is red to reddish orange.

ACTION AND USES: Used in the preparation of Cherry Syrup.

Cherry Syrup, Syrupus Cerasi, N. F.—Cherry Juice (47.5 per cent). Alcoholic content 1 to 2 per cent.

Wild Cherry, Prunus Virginiana, U. S. P. (Wild Black Cherry Bark).

ACTION AND USES: Mainly used as flavor.

Wild Cherry Fluidextract, Fluidextractum Pruni Virginianae, N. F.—Alcoholic content about 16 per cent.

DOSAGE: 2 cc. (N. F.).

Wild Cherry Syrup, Syrupus Pruni Virginianae, U. S. P.—Wild cherry (15 per cent) in glycerin, sucrose and distilled water. Alcoholic content about 1.5 per cent.

DOSAGE: 10 cc.

Chiniofon, Chiniofonum, U. S. P.—Iodine content about 27 per cent.

A canary-yellow powder having a slight odor and a bitter taste with sweet after-taste. Soluble in water, insoluble in alcohol, in ether and in chloroform.

ACTION AND USES: Chiefly used in the treatment of amebic dysentery, but its use requires consideration of its iodine content when used for patients with disturbance of the thyroid gland. Its use frequently causes diarrhea, but iodism is rare.

DOSAGE: 1 Gm. (U. S. P.).

Chiniofon Tablets, Tabellae Chiniofoni, U. S. P.—The usual size contains 0.25 Gm.

Chloral Hydrate, Chloralis Hydras, U. S. P. (Chloral).—$CCl_3CH(OH)_2$.

Colorless, transparent crystals with an aromatic, penetrating odor and a bitter, caustic taste. Very soluble in water (1 in 0.25) freely soluble in alcohol (1 in 1.3), in chloroform (1 in 2) and in ether (1 in 1.5).

ACTION AND USES: A useful hypnotic: moderate doses induce a condition closely resembling normal sleep. Useful for the relief of insomnia and nervousness. Untoward cardiac effects occur only with toxic doses in patients with heart disease. Continued use is likely to produce habituation.

DOSAGE: 0.6 Gm. (U. S. P.), in solution. Decomposed by alkalies; should not be dispensed in liquids containing both bromides and alcohol.

Chloramine-T, Chloramina-T, N. F. (Chloramine).—$[C_6H_4(CH_3)(SO_2NNaCl).3H_2O]$.

White or yellowish crystals or powder, having a slight odor of chlorine; decomposes slowly on exposure to air, losing chlorine; freely soluble in water (1 in 7) and is decomposed by alcohol. It is insoluble in chloroform and in ether.

ACTION AND USES: Its actions are essentially like those of diluted sodium hypochlorite solution. It is germicidal and antiseptic for infected wounds, in which it is used after incision and cleansing. Solutions containing 1 to 2 per cent are used by continuous irrigation.

Chloroazodin, Chloroazodinum, U. S. P.—$C_3H_4Cl_2N_4$.—Contains from 37.5 to 39.5 per cent active chlorine (Cl).

Bright yellow needles or flakes. It has a faint odor suggestive of chlorine and a slightly burning taste. Solutions of chloroazodin in glycerin and in alcohol decompose rapidly on warming, and all solutions of chloroazodin decompose on exposure to light. Very slightly soluble in water, sparingly soluble in alcohol, slightly soluble in glycerin and in triacetin.

ACTION, USES AND DOSAGE: It is used as a disinfectant to the mucous membranes of the vagina, colon and rectum in solutions of 1:2,000 in olive oil and for dressing, packing or irrigating infected wounds and cavities in solutions of 1:3,300 to 1:1,600 in aqueous solution. See also Chloroazodin Solution.

Chloroazodin Solution, Liquor Chloroazodini, U. S. P.—Contains, in each 100 cc., 0.26 Gm. of Chloroazodin dissolved in glyceryl triacetate.

Clear, yellow, somewhat oily liquid, having a slight fatty odor and a bitter taste.

ACTION, USES AND DOSAGE: See Chloroazodin. *Caution: Chloroazodin Solution should not come in contact with metal.* U. S. P. It represents a 1:385 concentration of chloroazodin and is diluted with 7.5 or 3 volumes of water to make 1:3,300 or 1:1,600 aqueous solution, respectively, and with 4 volumes of olive oil to make a 1:2,000 solution in oil.

Chlorobutanol, Chlorobutanol, U. S. P. (Chlorbutanol, Chloretone).—$Cl_3C.C(CH_3)_2.OH$.

Colorless to white crystals having a characteristic, somewhat camphoraceous odor and taste. Freely soluble in alcohol (1 in 1) and in glycerin (1 in 10) and slightly soluble in water (1 in 125). It is readily soluble in ether, in chloroform and in volatile oils.

ACTION AND USES: Hypnotic, antiseptic and systemic and local anesthetic; the latter action is utilized to allay gastric irritation. It is added to injectable solutions mostly as a preservative; it is also used to prevent seasickness.

DOSAGE: 0.6 Gm. (U. S. P.), orally.

Toothache Drops, Odontalgicum, N. F.—Chlorobutanol (25 per cent in clove oil).

Chloroform, Chloroformum, U. S. P.—$CHCl_3$.

A clear, colorless liquid with an ethereal odor and a burning, sweet taste. Slightly soluble (1 in 210) in water and miscible with alcohol, ether, purified benzine and benzene and with fixed or volatile oils.

ACTION AND USES: General anesthetic, administered by inhalation. Locally, a penetrating and fairly powerful irritant. Frequently used in the form of liniments. Small oral doses

are carminative, anodyne and antiseptic. Larger doses are anthelmintic but dangerous. It is a direct cardiac depressant.

Caution: Care should be taken not to vaporize chloroform in the presence of a naked flame because of the production of noxious gases. (U. S. P.)

DOSAGE: 0.3 cc. diluted.

Chloroform Liniment, Linimentum Chloroform, U. S. P.—A mixture of chloroform (30 per cent), camphor and soap liniment.

USES: Active counterirritant.

Chloroform Spirit, Spiritus Chloroformi, N. F.—Chloroform (6 per cent) in alcohol. Alcoholic content about 88 per cent.

DOSAGE: 2 cc. (N. F.).

Chloroform Water, Aqua Chloroformi, N. F.—A saturated solution of chloroform in distilled water.

DOSAGE: 15 cc. (N. F.).

Chlorothymol, Chlorothymol, N. F.—(Monochlorothymol).—$C_{10}H_{13}OCl$.

White crystals or powder with a characteristic odor and aromatic, pungent taste. Very soluble in alcohol (1 in 0.5) but practically insoluble in water.

ACTION AND USES: Antiseptic.

Cholera Vaccine, Vaccinum Cholerae, U. S. P.—A sterile suspension of killed cholera vibrios (Vibrio comma), of strains selected for high antigenic efficiency, in isotonic sodium chloride solution or suitable diluent. Each 1 cc. contains 8,000 million cholera organisms. The vaccine complies with the requirements of the National Institute of Health of the United States Public Health Service.

More or less turbid, whitish liquid, odorless or having a faint odor of preservative.

ACTION AND USES: For the prevention of cholera; its prophylactic value is not conclusively established.

DOSAGE: Hypodermic, for active immunization, 0.5 cc. followed by 1 cc. after a seven to ten days' interval, the latter dose preferably to be repeated once (U. S. P.). A followup stimulating dose of 1 cc. every six months while danger of infection exists has been suggested.

Cholesterol, Cholesterol, U. S. P. (Cholesterin).—$C_{27}H_{45}OH$.

White or faintly yellow, almost odorless, pearly leaflets or granules. May acquire a yellow to tan color on exposure to light. Insoluble in water and sparingly soluble in alcohol; soluble in fat solvents and in vegetable oils. It melts between 147 and 150 C.

ACTION AND USES: Laboratory reagent.

Chondrus, Chondrus, N. F. (Irish Moss).—Bleached and dried plant.

ACTION AND USES: Demulcent and lubricant.

Chondrus Mucilage, Mucilago Chondri, N. F. (Irish Moss Mucilage).—Chondrus (3 per cent) in water.

Chromium Trioxide, Chromii Trioxidum, U. S. P. (Chromic Anhydride, "Chromic Acid").—CrO_3.

Dark purplish red, odorless, deliquescent crystals. Very soluble in water (1 in 0.6). Incompatible with most organic substances. *Caution: Chromium Trioxide should not be brought into intimate contact with organic substances* (such as alcohol and glycerin) *as serious explosions are likely to result. (U. S. P.)*

ACTION AND USES: A powerful oxidizing agent and caustic. Its action is difficult to control.

Chrysarobin, Chrysarobinum, U. S. P.—Neutral principles from Goa powder.

Brownish to orange-yellow, tasteless, odorless powder, irritating to the mucous membrane. Slightly soluble in alcohol (1 in 400), soluble in chloroform (1 in 15) and very slightly soluble in water.

ACTION AND USES: Antiparasitic; a powerful irritant to the skin, used chiefly in the treatment of psoriasis and trichophytosis. Caution—very irritating to the eyes.

Chrysarobin Ointment, Unguentum Chrysarobini, U. S. P.—Chrysarobin (6 per cent), yellow ointment (87 per cent) and chloroform (7 per cent).

Cimicifuga, Cimicifuga, N. F. (Black Snakeroot, Black Cohosh).—Dried rhizome and roots.

ACTION AND USES: A "domestic medicine" that has been tried as stomachic, antispasmodic, aphrodisiac, diaphoretic, diuretic and expectorant, but which has not been found to possess definite value.

DOSAGE: 1 Gm. (N. F.).

Cimicifuga Fluidextract, Fluidextractum Cimicifugae, N. F. (Black Cohosh Fluidextract).—Cimicifuga (100 per cent). Alcoholic content about 75 per cent.

DOSAGE: 1 cc. (N. F.).

Cinchona, Cinchona, N. F. (Peruvian Bark, Cinchona Bark).—Yields not less than 5 per cent of alkaloids.

ACTION AND USES: Astringent bitter tonic.

DOSAGE: 1 Gm. (N. F.).

Compound Cinchona Tincture, Tinctura Cinchonae Composita, N. F.—Cinchona (10 per cent, yielding about 0.45 per cent cinchona alkaloids), serpentaria (2 per cent), diluted hydrochloric acid and bitter orange peel, in glycerin, alcohol and water. Alcoholic content about 60 per cent.

USES: Aromatic astringent bitter, of high alcoholic content.

DOSAGE: 4 cc. (N. F.).

Cinchonidine Sulfate, Cinchonidinae Sulfas, N. F.—The sulfate of the alkaloid cinchonidine, obtained from cinchona bark.

White, glistening, odorless needles with a very bitter taste. Sparingly soluble in water (1 in 65) and in alcohol (1 in 90).

ACTION AND USES: Formerly used as a substitute for quinine sulfate. It is less efficient and more convulsant.

DOSAGE: 0.15 Gm. (N. F.).

Cinchonine Sulfate, Cinchoninae Sulfas, N. F.—The sulfate of the alkaloid cinchonine, obtained from cinchona bark.

White, lustrous, odorless crystals with a very bitter taste. Sparingly soluble in water (1 in 60) and soluble in alcohol (1 in 12.5).

ACTION AND USES: Similar to those of cinchonidine sulfate.

DOSAGE: 0.15 Gm. (N. F.).

Cinchophen, Cinchophenum, N. F. (Phenylcinchoninic Acid, Phenyl-quinoline-carboxylic Acid).—$C_6H_5C_9H_5N.COOH$.

A white or nearly white, odorless or nearly odorless powder with a bitter taste. Practically insoluble in cold water. Soluble in chloroform, ether and alcohol. Slightly soluble in cold alcohol.

ACTION AND USES: Analgesic and antipyretic, used especially in arthritis. Increases the excretion of uric acid and diminishes its concentration in the blood; long continued use or overdosage may cause grave symptoms of intoxication or even fatal hepatitis.

DOSAGE: 0.5 Gm. (N. F.), in tablets or powder.

Cinchophen Tablets, Tabellae Cinchopheni, N. F.

Cinnamaldehyde, Cinnamaldehydum, N. F. (Cinnamic Aldehyde, Cinnamyl Aldehyde).—C_9H_8O.—Contains not less than 98 per cent cinnamic aldehyde.

Yellow, strongly refractive liquid, having an odor of cinnamon oil and a burning, aromatic taste. Dissolves in water (1 in 700) and is miscible with alcohol, chloroform and ether and with fixed or volatile oils.

ACTIONS AND USES: Exhibits the cordial and carminative properties of cinnamon oil, of which it constitutes the principal part. Used chiefly as an adjuvant to stomachic and carminative stimulants. Its antibacterial and fungicidal powers are limited by its local irritant properties. It is corrosive to mucous membranes.

Cinnamon, Cinnamomum, U. S. P. (Saigon Cinnamon).—A bark.

ACTION AND USES: Carminative, antiseptic, somewhat astringent, occasionally administered in diarrhea.

Aromatic Powder, Pulvis Aromaticus, N. F.—Cinnamon, ginger, cardamon seed and myristica.

USES: Carminative.

DOSAGE: 1 Gm. (N. F.).

Ceylon Cinnamon, Cinnamomum Zeylanicum, N. F.—Dried inner bark of Cinnamomum zeylanicum Nees (Fam. Lauraceae). Yields not less than 0.5 cc. of volatile oil from each 100 Gm.

ACTION AND USES: Aromatic carminative used chiefly in powder form as a flavoring.

Cinnamon Oil, Oleum Cinnamomi, U. S. P. (Cassia Oil).—A volatile oil.

Soluble (1 in 2) in 70 per cent alcohol.

ACTION AND USES: Aromatic flavor.

DOSAGE: 0.1 cc. (U. S. P.).

Cinnamon Spirit, Spiritus Cinnamomi, U. S. P.—Cinnamon oil (10 per cent) in alcohol. Alcoholic content about 85 per cent.

DOSAGE: 1 cc. (U. S. P.).

Cinnamon Syrup, Syrupus Cinamomi, N. F.—Cinnamon oil, compound cudbear tincture and syrup.

USES: Flavoring vehicle.

Cinnamon Tincture, Tinctura Cinnamomi, N. F.—Cinnamon in alcohol, glycerin and water. Alcoholic content about 63 per cent.

DOSAGE: 1 cc. (N. F.).

Cinnamon Water, Aqua Cinnamomi, U. S. P.—A saturated solution of cinnamon oil in distilled water.

DOSAGE: 15 cc.

Citric Acid, Acidum Citricum, U. S. P. $(CH_2COOH)_2$. $C.OH.COOH.H_2O$.

Colorless, odorless translucent crystals or a white granular to fine, crystalline powder. It has an acid taste and is efflorescent in dry air. Very soluble in water (1 in 0.5) and freely soluble in alcohol (1 in 2).

ACTION AND USES: Chiefly in acidulous flavoring syrups.

Citric Acid Syrup, Syrupus Acidi Citrici, U. S. P.—Citric acid (1 per cent), flavored with lemon tincture, in syrup. *Caution: This preparation must not be dispensed if it has a terebinthinate odor or taste, or if it shows other indications of deterioration. (U. S. P.)*

USES: Vehicle for salty substances such as bromides or ammonium chloride.

Clove, Caryophyllus, U. S. P. (Cloves).

ACTION AND USES: Aromatic carminative and counter-irritant. See also **Clove Oil.**

DOSAGE: 0.25 Gm.

Clove Oil, Oleum Caryophylli, U. S. P.—A volatile oil. Soluble (1 in 2) in 70 per cent alcohol.

ACTION AND USES: Externally: rubefacient and counter-irritant; internally: carminative; local analgesic.

Coal Tar, Pix Carbonis, N. F.—Obtained by the destructive distillation of coal.

Nearly black, heavy, thick liquid, with a characteristic naphthalene-like odor and a sharp, burning taste. Only slightly soluble in water; partially dissolved by alcohol.

ACTION AND USES: Antiseptic and irritant; used in skin diseases as 5 to 10 per cent ointments.

Coal Tar Ointment, Unguentum Picis Carbonis, U. S. P.—Coal tar 5 per cent with starch 25 per cent, zinc oxide 25 per cent and white petrolatum 45 per cent.

ACTION AND USES: Its long-continued use is dangerous.

Coal Tar Solution, Liquor Picis Carbonis, N. F. (Liquor Carbonis Detergens).—Coal tar (20 per cent), quillaja (10 per cent) and alcohol. Alcoholic content about 85 per cent.

USES: For external use, dilute with 9 volumes of water (N. F.). It may be used in ointments in strengths of from 5 to 20 per cent.

Chloroformic Coal Tar Solution, Liquor Picis Carbonis Chloroformicus, N. F.—Coal tar (5 per cent) in chloroform.

Yellowish brown solution with the empyreumatic odor of coal tar, associated with the characteristic odor of chloroform.

USE: For external use—paint on the skin undiluted. (N. F.)

Cocaine, Cocaina, U. S. P.—An alkaloid obtained from coca leaves or by synthesis.

Colorless prisms or a white powder; odorless. Slightly soluble in water (1 in 600), freely soluble in alcohol (1 in 7) and in olive oil (1 in 12).

ACTION AND USES: A local anesthetic, paralyzing the peripheral sensory nerves and also contracting the blood vessels. Acute systemic poisoning is often caused by its injection or incautious local use on mucous membranes. Stimulant to the central nervous system, but inadvisable because of danger of addiction.

DOSAGE: 15 mg. Rarely given for systemic effects.

Cocaine Hydrochloride, Cocainae Hydrochloridum, U. S. P. (Cocaini hydrochloridum, P. I.).

Colorless crystals or a white powder; odorless. Very soluble in water (1 in 0.5), freely soluble in alcohol (1 in 3.5). Incompatible with borax, alkalies, phenol and tannic acid.

ACTION AND USES: For local anesthesia, especially for topical use on mucous membranes where only small amounts are required.

DOSAGE: 15 mg. It should not be injected hypodermically.

Cocaine Hydrochloride Tablets, Tabellae Cocainae Hydrochloridi, N. F.

Cochineal, Coccus, U. S. P.—A dried female insect.

ACTION AND USES: Coloring agent.

Cochineal Solution, Liquor Cocci, N. F. (Cochineal Color).—Cochineal (6.5 per cent), potassium carbonate, alum, potassium bitartrate, glycerin and distilled water.

Coconut Oil, Oleum Cocois, N. F.—Fixed oil from seeds of cocos nucifera Linné (Fam. Palmae).

A pale yellow to colorless liquid at 28 to 30 C., becoming semisolid at 20 C. and hard and brittle below 15 C. Soluble in ether, chloroform, carbon disulfide and petroleum benzine; insoluble in water.

Note: Coconut Oil that has become rancid must not be used. (N. F.).

ACTION AND USES: Composed largely of a mixture of the glycerides of several fatty acids; used chiefly as an emulsifying agent and a constituent of soap, especially for rendering the latter transparent, hydrous or less affected by hard water.

Cod Liver Oil, Oleum Morrhuae, U. S. P.—It contains in 1 Gm. not less than 850 U. S. P. units of vitamin A and 85 U. S. P. units of vitamin D with not more than 1 per cent of any official flavoring substance(s).

ACTION AND USES: It is employed for the prevention and cure of rickets, to provide vitamin A and D where needed and in the prophylaxis and treatment of keratomalacia and night blindness. Generally administered alone or in the form of a recently prepared emulsion.

DOSAGE: Infants and adults, 8 cc. (U. S. P.).

Note: Cod liver oil containing more than the minimum U. S. P. requirements for both vitamin A and vitamin D may be administered in proportionally smaller doses. (U. S. P.).

Cod Liver Oil Emulsion, Emulsum Olei Morrhuae, U. S. P.—Cod liver oil (50 per cent) with acacia, syrup, methyl salicylate and distilled water. Other flavors may be substituted for the methyl salicylate.

DOSAGE: Infants and adults, 15 cc. daily.

Note: Cod liver oil emulsion when prepared from oil containing more than the minimum U. S. P. requirements for both vitamin A and vitamin D may be administered in proportionally smaller doses. (U. S. P.)

Emulsion, Cod Liver Oil with Malt, Emulsum Olei Morrhuae cum Malto, N. F. (Malt and Cod Liver Oil).—Cod liver oil (30 per cent), malt extract, tragacanth and distilled water.

DOSAGE: 15 cc. (N. F.).

Non-Destearinated Cod Liver Oil, Oleum Morrhuae Non-Destearinatum, U. S. P.—Entire fixed oil obtained from fresh cod livers. Contains in 1 Gm. at least 850 U. S. P. units of vitamin A, and at least 85 U. S. P. units of vitamin D.

USES: The crude preparation from which medicinal cod liver oil is made by chilling and filtering.

Codeine, Codeina, N. F.—An alkaloid obtained from opium or prepared from morphine by methylation.

Colorless crystals or a white powder; slightly soluble in water (1 in 120), freely soluble in alcohol (1 in 2) and very soluble in chloroform (1 in 0.5).

ACTION AND USES: Analgesic, hypnotic and sedative. It is perhaps the best modification of morphine for use in coughs. It is less constipating than morphine and much less likely to induce addiction. The phosphate and sulfate are preferred for hypodermic use.

DOSAGE: 30 mg. (N. F.).

Terpin Hydrate and Codeine Elixir, Elixir Terpini Hydratis et Codeinae, N. F.—Codeine (0.2 per cent) and terpin hydrate elixir. Alcoholic content about 40 per cent.

DOSAGE: 4 cc. (N. F.). This dose contains 8 mg. of codeine and about 68 mg. of terpin hydrate.

Codeine Phosphate, Codeinae Phosphas, U. S. P.—$C_{18}H_{21}O_3N.H_3PO_4.1\frac{1}{2}H_2O$.

White odorless, crystals or powder. Freely soluble in water (1 in 2.5) and slightly soluble in alcohol (1 in 325).

ACTION AND USES: Same as those of codeine; preferred for hypodermic use.

DOSAGE: 30 mg. (U. S. P.).

Compound White Pine Syrup with Codeine, Syrupus Pini Albae Compositus cum Codeina, N. F.—Codeine phosphate (0.2 per cent) and distilled water (1 per cent) in compound white pine syrup.

DOSAGE: 4 cc. (N. F.).

Codeine Phosphate Tablets, Tabellae Codeinae Phosphatis, U. S. P.—The usual sizes contain 15 mg., 30 mg. and 60 mg.

Codeine Sulfate, Codeinae Sulfas, U. S. P.—$(C_{18}H_{21}O_3N)_2.H_2SO_4.5H_2O$.

White, odorless, efflorescent crystals or white powder. Soluble in water (1 in 30) and very slightly soluble in alcohol (1 in 1,280).

ACTION AND USES: Same as those of codeine. Preferred for hypodermic injections.

DOSAGE: 30 mg. (U. S. P.).

Codeine Sulfate Tablets, Tabellae Codeinae Sulfatis, U. S. P.—The usual sizes contain 15 mg., 30 mg. and 60 mg.

Colchicine, Colchicina, U. S. P.—An alkaloid obtained from colchicum.

Pale yellow, odorless scales or powder. Freely soluble in alcohol and chloroform and soluble in water (1 in 25). *Caution—Colchicine is extremely poisonous.*

ACTION AND USES: Analgesic for the treatment of gout.

DOSAGE: 0.5 mg. (U. S. P.).

Colchicine Tablets, Tabellae Colchicinae, U. S. P.—The usual size contains 0.5 mg.

Colchicum Corm, Colchici Cormus, N. F. (Colchicum root).—Yields not less than 0.35 per cent anhydrous colchine.

ACTION AND USES: Same as those for Colchicine.

DOSAGE: 0.25 Gm. (N. F.), in pills or preferably as the tincture.

Colchicum Corm Fluidextract, Fluidextractum Colchici Cormi, N. F.—Colchicum corm (100 per cent), yielding about 0.35 per cent colchicine. Alcoholic content about 55 per cent.

DOSAGE: 0.25 cc. (N. F.).

Strong Colchicum Corm Tincture, Tinctura Colchici Cormi Fortis, N. F.—Colchicum corm fluidextract (40 per cent) yielding about 0.14 per cent colchicine, in alcohol and water. Alcoholic content about 26 per cent.

DOSAGE: 0.6 cc. (N. F.).

Colchicum Seed, Colchici Semen, N. F. (Colchici Semen, P. I.).—Yields not less than 0.45 per cent of colchicine.

ACTION AND USES: Same as those for Colchicine.

DOSAGE: 0.2 Gm.

Colchicum Seed Fluidextract, Fluidextractum Colchici Seminis, N. F.—Colchicum seed (100 per cent), yielding 0.45 per cent colchicine. Alcoholic content about 55 per cent.

DOSAGE: 0.2 cc. (N. F.).

Colchicum Seed Tincture, Tinctura Colchici Seminis, N. F. (Colchicum Tincture, Tinctura Colchici, P. I.).—Colchicum seed (10 per cent) yielding about 0.04 per cent colchicine. Alcoholic content about 61 per cent.

DOSAGE: 2 cc. (N. F.).

Colocynth, Colocynthis, N. F. (Colocynth Pulp, Bitter Apple).

ACTION AND USES: A powerful irritant hydragogue cathartic. Because of its drastic nature it is seldom used alone. The compound pills listed hereafter are needlessly complex and therefore irrational. Because of their irritant character, they are especially unsuited for continued use.

DOSAGE: 0.125 Gm. (N. F.).

Colocynth Extract, Extractum Colocynthidis, N. F. (Powdered colocynth Extract, Bitter Apple Extract).—One Gm. of extract represents 4 Gm. of colocynth.

DOSAGE: 30 mg. (N. F.).

Compound Colocynth Extract, Extractum Colocynthidis Compositum, N. F.—Colocynth extract (16 per cent), aloe (65 per cent), ipomea resin (14 per cent) and cardamom seed.

DOSAGE: 0.25 Gm. (N. F.).

Compound Colocynth and Jalap Pills, Pilulae Colocynthidis et Jalapae Compositae, N. F. (Vegetable Cathartic Pills).—Each pill contains compound colocynth extract, 0.06 Gm., hyoscyamus extract, 0.03 Gm. jalap resin, 0.02 Gm., leptandra extract and podophyllum resin, each 0.015 Gm. with peppermint oil and diluted alcohol.

DOSAGE: 1 pill (N. F.).

Convallaria, Convallaria, N. F. (Lily-of-the-Valley Root).—Dried rhizome and roots.

ACTION AND USES: Its action is similar to that of digitalis, but it is absorbed poorly and its effects are therefore uncertain.

DOSAGE: 30 mg. (N. F.).

Copaiba, Copaiba, N. F. (Balsam Copaiba).—An oleoresin.

Pale yellow or brownish yellow, viscid liquid with an aromatic odor and a persistent, bitter, acrid taste. Insoluble in water and partly soluble in alcohol.

ACTION AND USES: A mild but disagreeable irritant and diuretic. Formerly used in the treatment of gonorrhea, especially as the mixture but of little value.

DOSAGE: 1 cc. (N. F.).

Copaiba Mixture, Mistura Copaibae, N. F. (Lafayette Mixture).—Copaiba (12.5 per cent), sodium nitrite (0.3 per cent), compound lavender tincture, potassium hydroxide solution in syrup, acacia and distilled water. Alcoholic content about 9 per cent.

DOSAGE: 8 cc. (N. F.).

Coriander, Coriandrum, N. F. (Coriander Seed).—A fruit.

ACTION AND USES: Aromatic and carminative.

DOSAGE: 2 Gm. (N. F.).

Coriander Oil, Oleum Coriandri, U. S. P.—A volatile oil. Soluble (1 in 3) in 70 per cent alcohol.

ACTION AND USES: Carminative aromatic.

DOSAGE: 0.1 cc.

Corn Oil, Oleum Maydis, U. S. P.—Refined, fixed oil from the embryo of Zea Mays Linné (Fam. Gramineae).

Clear, light yellow, oily liquid having a faint characteristic odor and taste. Slightly soluble in alcohol, miscible with ether, chloroform, benzene and petroleum benzine.

ACTION AND USES: It has been used as a solvent for activated ergosterol but is principally employed as a foodstuff. Locally, it has only the general emollient properties of other fixed oils.

Corpus Luteum, Corpus Luteum, N. F. (Desiccated Corpus Luteum.)—Dried, undefatted, powdered corpus luteum from the ovary of cattle, sheep or swine. One part represents about 5 parts of fresh corpus luteum. It contains no diluent or preservative. Light brown powder, with a characteristic maltlike odor. Partially soluble in water and in alcohol.

ACTION AND USES: There is no evidence that the oral administration of corpus luteum produces any therapeutic effect.

Cotarnine Chloride, Cotarninae Chloridum, N. F. (Cotarnine Hydrochloride). Yellow, odorless powder. Freely soluble in water and in alcohol, yielding greenish yellow solutions.

ACTION AND USES: Used to check functional uterine hemorrhage but without satisfactory evidence of value.

DOSAGE: 60 mg. (N. F.).

Purified Cotton, Gossypium Purificatum, U. S. P. (Absorbent Cotton).—The hairs of the seed of cultivated varieties of Gossypium, freed from adhering impurities, deprived of fatty matter, bleached and sterilized.

ACTION AND USES: Absorbent surgical dressing and filtering agent.

Caution: Purified cotton must not be used for dressings without resterilization if the unopened container displays any evidence of damage or if the container has been opened previously.

Cotton Root Bark, Gossypii Radicis Cortex, N. F.—Recently gathered air-dried bark of the root.

ACTION AND USES: Exploited as an emmenagogue but without established value.

DOSAGE: 2 Gm. (N. F.).

Cottonseed Oil, Oleum Gossypii Seminis, U. S. P.—A fixed oil.

ACTION AND USES: Frequently employed in place of olive oil, in preparations for external use.

Coumarin, Coumarinum, N. F.

Colorless, fragrant crystals with a bitter, burning taste. Slightly soluble in cold water; freely soluble in alcohol.

ACTION AND USES: Perfume and flavor.

Cresol, Cresol, U. S. P.—A mixture of isomeric cresols, $C_6H_4.(CH_3).OH$. Obtained from coal tar.

Colorless or yellow or brown liquid, darkening with age and exposure to light and having a phenol-like odor. Soluble in water (1 in 50), usually forming a cloudy solution, and miscible with alcohol, ether or glycerin.

ACTION AND USES: Action similar to that of phenol. Used as a disinfectant and antiseptic. Approximately four times as germicidal as phenol and probably no more toxic.

DOSAGE: 0.06 cc.

Saponated Cresol Solution, Liquor Cresolis Saponatus, U. S. P. (Compound Cresol Solution).—Cresol (50 per cent) with vegetable oil, potassium hydroxide and distilled water.

Creosote, Creosotum, N. F. (Creosote, Wood Creosote).—A mixture chiefly of guaiacol and creosol, obtained from wood tar.

An almost colorless, oily liquid with a penetrating, smoky odor and a burning, caustic taste. Slightly soluble in water and miscible with alcohol or ether and with fixed or volatile oils.

ACTION AND USES: Formerly used as an intestinal antiseptic and externally as an antiseptic dressing.

DOSAGE: 0.25 cc. (N. F.), in capsules.

Creosote Carbonate, Creosoti Carbonas, N. F.—A mixture of the carbonates of various constituents of creosote, chiefly guaiacol and creosol.

An almost colorless, almost tasteless, odorless viscid liquid, Insoluble in water; freely soluble in alcohol.

ACTION AND USES: Passes stomach unchanged; hence is not a gastric irritant; decomposed in the intestines; used as an intestinal antiseptic but of slight value.

DOSAGE: 1 Gm. (N. F.).

Cubeb, Cubeba, N. F. (Cubeb-berries).—Dried, nearly full-grown, unripe fruit.

ACTION AND USES: Formerly used internally as an antiseptic, diuretic and as a stimulant to the genitourinary membranes; also to some extent as a stimulating expectorant. Probably of little value.

DOSAGE: 2 Gm. (N. F.).

Cubeb Oleoresin, Oleoresina Cubebae, N. F.

DOSAGE: 0.5 Gm. (N. F.).

Cudbear, Persio, N. F.—A purplish red powder prepared from lichens.

ACTION AND USES: Coloring agent.

Cudbear Tincture, Tinctura Persionis, N. F.—Cudbear (10 per cent). Alcoholic content about 64 per cent.

USES: To impart a reddish color.

Compound Cudbear Tincture, Tinctura Persionis Composita, N. F.—Cudbear tincture and caramel in alcohol and water. Alcoholic content about 22 per cent.

USES: To impart a reddish brown color.

Cupric Citrate, Cupri Citras, U. S. P. (Copper Citrate).—$Cu_2C_6H_4O_7.2\frac{1}{2}H_2O$.—Contains about 35.5 per cent copper.

Green or bluish green, fine, crystalline, odorless powder. Slightly soluble in water; more soluble in solution with alkali citrate, forming a greenish blue solution.

ACTION AND USES: Astringent and antiseptic; used chiefly in ointment for the local treatment of trachoma. Shares the fungicidal action of other copper compounds but is less desirable than other agents for that purpose.

DOSAGE: Ointments containing 5 to 10 per cent may be applied locally for the treatment of trachoma.

Cupric Citrate Ointment, Unguentum Cupri Citratis, U. S. P. (Copper Citrate Ointment). Contains cupric citrate 8 per cent in wool fat and petrolatum.

Cupric Sulfate, Cupri Sulfas, U. S. P. (Copper Sulfate).—$CuSO_4.5H_2O$.

Blue crystals or powder with a metallic taste. Freely soluble in water (1 in 3), in glycerin (1 in 3) and slightly soluble in alcohol (1 in 500).

ACTION AND USES: Locally as astringent. In large doses a gastric and intestinal irritant producing violent vomiting and purging. Considered one of the best antidotes in phosphorus poisoning.

DOSAGE: 0.3 Gm.

Cyclopropane, Cyclopropanum, U. S. P. (Trimethylene).—Contains not less than 99 per cent by volume of $CH_2.CH_2.CH_2$. It is usually furnished in compressed form in metallic cylinders.

Caution: Cyclopropane is inflammable and a mixture of it with oxygen or air may explode when brought in contact with a flame or other causes of ignition. (U. S. P.).

A colorless gas of characteristic odor resembling petroleum benzine and having a pungent taste. It is freely soluble in alcohol, ethereal solvents and oils.

ACTION AND USES: It is used by inhalation to induce general anesthesia and is effective with oxygen concentrations sufficient to meet physiologic needs. It should not be administered by any one who is unfamiliar with its disadvantages and contraindications.

Desoxycorticosterone Acetate, Desoxycorticosteroni Acetas, U. S. P.—$C_{23}H_{32}O_4$.

White, crystalline powder; odorless, stable in air. Practically insoluble in water; sparingly soluble in acetone, in alcohol and in dioxane; slightly soluble in vegetable oils. Melts between 154 and 160 C.

ACTION AND USES: A synthetically prepared compound representing one of the hormone components of the adrenal cortex, chiefly concerned with the metabolism of salt and water. It does not reproduce the total effect provided by whole cortical extracts of the gland and is relatively inactive by mouth. Its therapeutic use, although promising, is not definitely established.

DOSAGE: Intramuscular and implantation—as determined by the physician according to the needs of the patient. (U. S. P.)

Dextrose, Dextrosum, U. S. P. (*d*-Glucose).—$C_6H_{12}O_6.H_2O$. —All solutions of dextrose labeled with respect to their dextrose content should indicate the number of grams of U. S. P. (hydrous) dextrose contained in each 100 cc.

A white, crystalline powder, or white granules, containing not more than 10 per cent of moisture; odorless and having a sweet taste; freely soluble in water (1 in 1) and sparingly soluble in alcohol (1 in 60).

ACTION AND USES: It is a readily absorbable food which may be administered by mouth, by rectum or by hypodermic or intravenous injection.

DOSAGE: 180 Gm. It may be given daily by mouth or by rectum. A solution containing 5 to 12 per cent is used for rectal injection. Intravenous dosage, 250 to 300 cc. of 5 to 20 per cent solution, sterilized by boiling or in an autoclave.

Dextrose Injection, Injectio Dextrosi, U. S. P. (Dextrose Ampuls).—A sterile solution of dextrose in water for injection.

Dextrose and Sodium Chloride Injection, Injectio Dextrosi et Sodii Chloridi, U. S. P. (Dextrose and Sodium Chloride Ampuls).—A sterile solution of dextrose and sodium chloride in water for injection. *Caution: The sodium chloride content in this injection is generally of high concentration. Dextrose and Sodium Chloride Injection containing a sodium chloride concentration corresponding to the sodium chloride content of isotonic sodium chloride solution is to be labeled "Dextrose Injection in Isotonic Sodium Chloride Solution." (U. S. P.)*

Dichloramine-T, Dichloramina-T, N. F. (Dichloramine), Paratoluenesulfondichloramide.—$C_6H_4.CH_3.SO_2NCl_2$. It contains about 29 per cent of active chlorine.

Pale, yellow, odorless crystals or a yellow powder having an odor of chlorine; decomposes on exposure to air, losing chlorine; almost insoluble in water, soluble in eucalyptol and in chlorinated paraffin hydrocarbons, in glacial acetic acid and in alcohol.

ACTION AND USES: It is germicidal and exerts a sustained antiseptic action; it is more irritant than chloramine. It does not dissolve catgut ligatures. It should not be administered internally. It is used in solution in Chlorcosane (chlorinated paraffin) in concentrations of 2 to 10 per cent for the prevention and treatment of diseases of the nose and throat. A solution of 3 to 10 per cent is applied to infected wounds. The solution in Chlorosane is unstable and it may become irritant because of the formation of hydrochloric acid; should not be kept for more than two or three days. Dichloramine-T and the solution should be protected from sunlight.

Dichlorophenarsine Hydrochloride, Dichlorophenarsine Hydrochloridum, U. S. P.—$C_6H_6AsCl_2NO.HCl$.—Contains about 24.6 per cent arsenic, when dried in vacuum over phosphorus pentoxide. It is usually distributed as a mixture with buffering agents and suitable substances to render the solution compatible with the blood. It must be prepared and packaged under license by the United States Government, must comply with the requirements of the National Institute of Health with regard to toxicity and labeling and must be released by the Institute.

White, odorless powder, soluble in water, alkalies and dilute mineral acids. It must be stored in a cool place, in hermetic containers with exclusion of air.

ACTION AND USES: Used in the arsenical treatment of syphilis. It is admixed with an alkaline buffer for the preparation of solutions suitable for injection; the solution supposedly resulting in the formation of arsenoxide that is said to be responsible for its therapeutic activity.

DOSAGE: Intravenous, 45 mg. (U. S. P.). The maximum dose is 68 mg. Injections are given every four to five days. For children, the initial dose should not exceed 0.5 mg., and subsequent doses should lie between 0.5 and 1.0 mg. per kilogram of body weight.

Diethylstilbestrol, Diethylstilbestrol, U. S. P. (Stilboestrol).—$C_{18}H_{20}O_2$.—Contains not less than 98.5 per cent, when dried.

White, odorless, crystalline powder, almost insoluble in water, soluble in alcohol, chloroform, ether and fatty oils and in dilute alkali hydroxides. It melts between 169 and 172 C.

ACTION AND USES: A potent estrogenic stilbene compound that duplicates practically all the known actions of natural estrogens and shares the therapeutic uses generally recognized for them. It is relatively active orally as well as percutaneously; the ratio of potency between oral and parenteral administration varies from 1:2 to 1:5. Its usefulness is limited by nausea and vomiting that frequently accompanies its administration.

DOSAGE: 0.2 mg. (U. S. P.). Orally, 0.5 to 1.0 mg. daily, or intramuscularly, the same amount in solution once or twice weekly is given for the treatment of menopausal symptoms. Ointment or suppositories may be used in the treatment of vulvar and vaginal conditions.

Diethylstilbestrol Capsules, Capsulae Diethylstilbestrolis, U. S. P.

DOSAGE: 0.2 mg. of diethylstilbestrol (U. S. P.), usually available in capsules containing 0.5 and 1.0 mg.

Diethylstilbestrol Injection, Injectio Diethylstilbestrolis, U. S. P.—A sterile solution of diethylstilbestrol in oil or other suitable solvent, containing about 100 per cent of the labeled amount of the drug.

DOSAGE: Intramuscular, 0.2 mg. of diethylstilbestrol (U. S. P.), usually available in ampuls containing 0.5 or 0.1 mg. in 1 cc.

Diethylstilbestrol Tablets, Tabellae Diethylstilbestrolis, U. S. P.

DOSAGE: 0.2 mg. of diethylstilbestrol (U. S. P.), usually available in tablets containing 0.1, 0.5 and 1.0 mg.

Digitalis, Digitalis, U. S. P. (Foxglove, Digitalis folium, P. I.).—The dried leaves. Potency: 0.1 Gm. is equivalent to not less than 1 U. S. P. digitalis unit (international unit).

Note: When digitalis is prescribed powdered digitalis is to be dispensed.—U. S. P.

Powdered Digitalis, Digitalis Pulverata, U. S. P.—Potency: 0.1 Gm. equivalent to 1 U. S. P. digitalis unit.

A fine, green powder.

ACTION AND USES: Used in cardiac decompensation. Most effective in auricular fibrillation. Effective in the treatment of edema only when the latter is due to impaired circulation. Overdosage causes nausea and vomiting.

DOSAGE: 0.1 Gm. (U. S. P.). When prompt effect is imperative larger doses are given but precautions are necessary.

Note: When digitalis is prescribed powdered digitalis is to be dispensed.

Digitalis Capsules, Capsulae Digitalis, U. S. P.—The usual sizes contain 50 mg. and 100 mg.

Digitalis Extract, Extractum Digitalis, N. F.—0.1 Gm. has the potency of 2.75 U. S. P. digitalis units.

DOSAGE: 30 mg. (N. F.).

Digitalis Infusion, Infusum Digitalis, N. F.—Powdered Digitalis, U. S. P., (1.5 per cent), alcohol (10 per cent), cinnamon spirit and distilled water, freshly prepared. This is an effective form of digitalis but has no advantage over the tincture.

DOSAGE: 6 cc. (N. F.).

Caution: Only the U. S. P. XIII biologically standardized "Powdered Digitalis" is to be used in this preparation, and the Infusion must not be dispensed unless freshly prepared.—N. F.

Digitalis Injection, Injectio Digitalis, U. S. P.—A sterile solution of one or more of the glycosides or therapeutically desirable and cardioactive constituents of digitalis in water for injection.

DOSAGE: Intravenous, 1 U. S. P. digitalis unit.

Digitalis Tablets, Tabellae Digitalis, U. S. P.—The usual sizes contain 50 mg. and 100 mg.

Digitalis Tincture, Tinctura Digitalis, U. S. P. (Tinctura Digitalis, P. I.).—Digitalis (10 per cent) in alcohol and water. Potency: 1 cc. is equivalent to 1 U. S. P. digitalis unit. Alcohol content about 70 per cent.

DOSAGE: 1 cc. (U. S. P.).

Digitoxin, Digitoxinum, U. S. P.—Either pure digitoxin ($C_{41}H_{64}O_{13}$) or a mixture of cardioactive glycosides obtained from Digitalis purpurea Linné and consisting chiefly of digitoxin. Its potency, assayed biologically, corresponds to the potency of an equal weight of U. S. P. Digitoxin Reference Standard.

Caution: Digitoxin is extremely poisonous. (U. S. P.)

White or pale buff, odorless, microcrystalline powder, which is insoluble in water and very slightly soluble in ether. Soluble in chloroform (1 in 40) and in alcohol (1 in 60).

ACTION AND USES: Used in the management of cardiac decompensation. It is subject to the same precautions as is digitalis, but has the advantage that it is almost completely absorbed and thus is nearly as effective by mouth as by vein. By oral administration, 1 mg. exerts about the same therapeutic action as 1 Gm. of digitalis, U. S. P. It produces less nausea and vomiting of local origin than does digitalis.

DOSAGE: Oral, 0.1 mg. Intravenous, to be determined by the physician according to the needs of the patient (U. S. P.). Digitalization can usually be accomplished by the administration of an amount not to exceed 1.2 mg. given as a single dose or in two or three divided doses; a daily dose of 0.2 mg. may accomplish this over a period of time, and less than that amount may be sufficient as a daily maintenance dose. The intravenous dose should not exceed the oral dose.

Digitoxin Injection, Injectio Digitoxini, U. S. P.—A sterile solution of digitoxin in 40 to 50 per cent alcohol solution, with or without glycerin.

DOSAGE: Intravenous, to be determined by the physician according to the needs of the patient (U. S. P.), usually available in ampuls containing 0.1 mg. in 1 cc. Because the drug is almost completely absorbed by mouth, intravenous administration is seldom necessary.

Digitoxin Tablets, Tabellae Digitoxini, U. S. P.

DOSAGE: 0.1 mg. of digitoxin (U. S. P.), usually available in tablets of 0.1 and 0.2 mg.

Digoxin, Digoxinum, U. S. P.—A glycoside obtained from the leaves of Digitalis lanata Ehrh. or Digitalis orientalis. The potency, assayed biologically, corresponds to the potency of an equal weight of U. S. P. Digoxin Reference Standard.

Caution: Digoxin is extremely poisonous. (U. S. P.)

Colorless to white crystals or crystalline powder. It is odorless and melts indistinctly with decomposition at about 265 C. Insoluble in water, chloroform or ether. Freely soluble in pyridine and soluble in dilute alcohol.

ACTION AND USES: Used in the treatment of cardiac decompensation. Assayed by the cat method it is about the same strength, but by the frog method about three times as strong, as digitoxin. Clinically, the dosage may be slightly more than that for digitoxin, and it shares the latter's advantage over digitalis in being more completely absorbed by mouth. It is said to be the most cumulative of the lanatosides, which are generally superior in this respect to Digitalis purpurea because of their rapid absorption and elimination.

DOSAGE: Oral, 0.5 mg. (U. S. P.). The initial oral digitalization dosage is about 1 to 1.5 mg. followed by 0.25 mg. at six hour intervals to obtain the desired effects; the daily maintenance dose is 0.25 to 0.5 mg. per day.

Digoxin Injection, Injectio Digoxini, U. S. P.—Sterile solution of digoxin in 70 per cent alcohol. It contains the labeled amount of digoxin.

DOSAGE: Intravenous, to be determined by the physician according to the needs of the patient, (U. S. P.), usually available in ampuls containing 0.5 mg. in 1 cc. The intravenous digitalization dosage is about 1.5 mg., usually divided into two doses; the maintenance dose is 0.25 mg. to 0.5 mg. daily.

Digoxin Tablets, Tabellae Digoxini, U. S. P.

DOSAGE: 0.5 mg. of digoxin (U. S. P.), usually available in tablets containing 0.25 mg.

Dihydromorphinone Hydrochloride, Dihydromorphinoni Hydrochloridum, U. S. P.—$C_{17}H_{19}O_2N.HCl$.

Fine, white, odorless, crystalline powder. It is affected by light. Soluble in water (1 in 3) and sparingly soluble in alcohol.

ACTION AND USES: Closely related to morphine with similar action, but it is more potent and has less tendency to side action. Caution is necessary in prolonged administration.

DOSAGE: 2 mg. (U. S. P.).

Dihydromorphinone Hydrochloride Tablets, Tabellae Dihydromorphinoni Hydrochloridi, U. S. P.—The usual sizes contain 1.2 mg. and 4 mg.

Dioctyl Sodium Sulfosuccinate, Dioctylis Sulfosuccinas Sodicum, N. F.—$C_{20}H_{37}O_7SNa$.—Contains about 7.1 per cent sulfur.

Pellets of white, waxlike plastic solid with an odor suggestive of octyl alcohol. Slowly soluble in water (1 in 70). Freely soluble in alcohol and in glycerin; very soluble in petroleum benzine.

ACTION AND USES: A slowly soluble surface-active agent for lowering surface or interfacial tension, employed chiefly with other emulsifiers as a pharmaceutic aid in the preparation of emulsified oils. Its wetting power is diminished or destroyed by hydrolysis with strong acids or alkalies but is enhanced by electrolytes.

Diphenylhydantoin Sodium, Diphenylhydantoinum Sodicum, U. S. P. (Soluble Phenytoin).—Contains about 91 per cent of diphenylhydantoin ($C_{15}H_{12}N_2O_2$).

White, odorless powder. It is somewhat hygroscopic and on exposure to air gradually absorbs carbon dioxide with the liberation of diphenylhydantoin. Freely soluble in water, the aqueous solution usually being somewhat turbid due to partial hydrolysis. Soluble in alcohol.

ACTION AND USES: It is an anticonvulsant with a relatively weak hypnotic action. It is given orally in the treatment of epileptic patients in place of phenobarbital and bromides. The transition should be gradual with some overlapping to minimize the number of seizures and side actions incident to its use.

DOSAGE: 0.1 Gm. (U. S. P.).

Diphenylhydantoin Sodium Capsules, Capsulae Diphenylhydantoini Sodici, U. S. P.—The usual sizes contain 30 mg. and 100 mg.

Diphtheria and Tetanus Toxoids, Toxoida Diphtherica et Tetanica, U. S. P. (Combined Diphtheria and Tetanus Toxoids).

A clear or slightly turbid, yellowish or brownish liquid. The diphtheria toxoid and tetanus toxoid shall be mixed in such proportions that each cc., or less, of combined toxoids will contain one individual human dose of each of the active ingredients. Complies with

the requirements of the National Institute of Health. The product should be stored for preservation between 2 and 10 C., preferably at the lower limit.

ACTION AND USES: Used for simultaneous active immunization against both diphtheria and tetanus, especially in children in whom protection against the former is routinely desirable with the latter.

DOSAGE: Hypodermic, for active immunization, 1 cc., to be repeated twice with intervals of approximately three weeks between injections. Additional doses may be required to secure a negative Schick test (U. S. P.).

Alum Precipitated Diphtheria and Tetanus Toxoids, Toxoida Diphtherica et Tetanica Alumen-praecipitata, U. S. P. (Combined Diphtheria and Tetanus Toxoids, Alum Precipitated).

A turbid, white, slightly gray or slightly pink suspension. The alum precipitated diphtheria toxoid and the alum precipitated tetanus toxoid shall be mixed in such proportions that each cc., or less, of the combined toxoids will contain one individual human dose of each of the active ingredients. Complies with the requirements of the National Institute of Health. The product should be stored for preservation between 2 and 10 C., preferably at the lower limit.

ACTION AND USES: Same as for the non-alum precipitated article, but it has a more delayed absorption and may require fewer doses to induce immunity.

DOSAGE: Hypodermic, for active immunization, 1 cc., to be repeated once with an interval of four to six weeks. Additional doses may be required to secure a negative Schick test (U. S. P.).

Diphtheria Antitoxin, Antitoxinum Diphthericum, U. S. P. (Purified Antidiphtheric Serum, Concentrated Diphtheria Antitoxin, Refined Diphtheria Antitoxin, Antidiphtheric Globulins).—A sterile aqueous solution of certain antitoxic substances from the blood serum or plasma of a healthy animal immunized against diphtheria toxin, dissolved in freshly distilled water. Sodium chloride and a preservative are added and the solution is filtered. It has a potency of not less than 500 antitoxic units in each cubic centimeter.

ACTION AND USES: Curative and prophylactic agent in diphtheria. The possibility of serum disease must be remembered. Caution should be exercised when diphtheria antitoxin is administered to persons who have had asthma, and, above all, "horse asthma."

DOSAGE: By parenteral injection: Therapeutic, 20,000 units; Prophylactic, 1,000 units (U. S. P.). In urgent cases diphtheria antitoxin is often given intravenously.

Diphtheria Toxin Diagnostic, Toxinum Diphthericum Diagnosticum, U. S. P. (Schick Test Toxin, Diphtheria Toxin for the Schick Test).—A solution containing toxic products of the growth of the diphtheria bacillus.

ACTION AND USES: Used in the Schick test to determine susceptibility to diphtheria.

DOSAGE: For determining susceptibility (Schick Test): Inject intracutaneously, 0.1 cc. of the dilution, representing 1/50 of the minimum lethal dose (for the guinea pig).

Diphtheria Toxoid, Toxoidum Diphthericum, U. S. P. (Diphtheria Anatoxin, Anatoxin-Ramon).—A sterile aqueous solution of the products of growth of the diphtheria bacillus, so modified as to have lost the ability to cause toxic effects in guinea pigs but retaining the property of inducing active immunity.

Alum Precipitated Diphtheria Toxoid, Toxoidum Diphthericum Alumen-praecipitatum.—U. S. P.

A turbid white suspension prepared by adding a sterile aqueous solution of alum to Diphtheria Toxoid, washing the resultant precipitate with isotonic sodium chloride solution and resuspending it in isotonic sodium chloride solution to which a suitable preservative may be added. It contains not more than 20 mg. of alum per human dose.

ACTION AND USES: Either form induces active immunity to diphtheria.

DOSAGE: Hypodermic, for active immunization, 1 cc. or 0.5 cc. (whichever is specified on the label) to be repeated once with an interval of four to six weeks. (U. S. P.)

Echinacea, Echinacea, N. F.—Dried rhizome and roots.

ACTION AND USES: The claims for this drug as an "alterative" and antisyphilitic are unwarranted. There are no established indications for its use.

DOSAGE: 1 Gm. (N. F.).

Elm, Ulmus, N. F. (Elm Bark, Slippery Elm).—Dried inner bark.

ACTION AND USES: Demulcent.

Emetine Hydrochloride, Emetinae Hydrochloridum, U. S. P.—The hydrated hydrochloride of the alkaloid emetine, obtained from ipecac or prepared synthetically.

White, or nearly white, odorless powder, darkening on exposure to light. Freely soluble in water or alcohol.

ACTION AND USES: Emetic, but seldom used as such; amebacidal for the relief of amebic hepatitis, for the prevention of amebic abscess of the liver, for the relief of symptoms in surgical amebic lesions and for the control of symptoms

of severe acute amebic dysentery. It is not commonly used for the routine treatment of amebiasis because it is less effective than other amebacides and also because the continued use causes neuritis, cardiac disturbance and depression.

DOSAGE: Daily, by intramuscular injection, 60 mg. Some authorities prefer daily doses of 30 mg. *Caution: The total dosage of a course of treatment should never exceed 0.6 to 0.8 Gm. The course should be interrupted at once if untoward symptoms occur.*

Emetine Hydrochloride Injection, Injectio Emetinae Hydrochloridi, U. S. P. (Emetine Hydrochloride Ampuls).—A sterile solution of emetine hydrochloride in water for injection. The usual sizes contain 20 mg., 30 mg. and 60 mg. each in 1 cc.

Ephedrine, Ephedrina, U. S. P.—$C_{10}H_{15}ON$. An alkaloid obtained from Ephedra equisetina or produced synthetically.

An unctuous, almost colorless solid, or white crystals. Soluble in alcohol, in water and in liquid petrolatum.

ACTION AND USES: The effects of ephedrine resemble those of epinephrine, but its direct action is partly muscular and it is effective orally. It increases the heart rate and causes constriction of the smaller blood vessels, thus increasing blood pressure. It dilates the bronchi; on local application it constricts the capillaries of mucous membrane, especially in rhinitis. It causes nervous excitation and it should be used cautiously, especially in patients who suffer with cardiac disease. It may be given for its stimulant effect on the central nervous system as in narcolepsy. Toxic doses depress the heart.

Ephedrine Spray, Nebula Ephedrinae, N. F.—Ephedrine (1 per cent) and methyl salicylate (0.2 per cent) in light liquid petrolatum.

Compound Ephedrine Spray, Nebula Ephedrinae Composita, N. F. (Compound Ephedrine Inhalant).—Ephedrine (1 per cent), camphor and menthol (each 0.6 per cent), thyme oil and light liquid petrolatum.

Ephedrine Hydrochloride, Ephedrinae Hydrochloridum, U. S. P.—$C_{10}H_{15}ON.HCl$.

White, odorless crystals or powder. Freely soluble in water (1 in 3), and soluble in alcohol (1 in 14).

ACTION AND USES: Similar to those of ephedrine; but it is used in aqueous solution or in powder.

DOSAGE: 25 mg. (U. S. P.).

Ephedrine Hydrochloride Tablets, Tabellae Ephedrinae Hydrochloridi, N. F.

Ephedrine Sulfate, Ephedrinae Sulfas, U. S. P.—$(C_{10}H_{15}ON)_2.H_2SO_4$.

White, odorles crystals or powder. Freely soluble in water and in hot alcohol.

ACTION AND USES: Similar to those of ephedrine hydrochloride.

DOSAGE: 25 mg. (U. S. P.).

Ephedrine Sulfate Ampuls, Ampullae Ephedrinae Sulfatis, N. F.—Contain a sterile solution of ephedrine sulfate in water for injection.

DOSAGE: 50 mg. of ephedrine sulfate (N. F.).

Ephedrine Sulfate Capsules, Capsulae Ephedrinae Sulfatis, N. F.

ACTION AND USES: Used for the control of bronchial asthma and hay fever, as a central nervous system stimulant in narcolepsy and to prevent the muscle weakness of myasthenia gravis.

DOSAGE: 25 mg. of ephedrine sulfate (N. F.).

Ephedrine Sulfate and Phenobarbital Capsules, Capsulae Ephedrinae Sulfatis et Phenobarbitalis, N. F.

ACTION AND USES: An arbitrary bronchial antispasmodic and sedative combination designed to counteract the central effects of ephedrine when used over prolonged periods against asthma or seasonal hay fever. The fixed proportions of the combination render it unsuited to proper adjustment of dosage for a given patient.

DOSAGE: 25 mg. of ephedrine sulfate; 30 mg. of phenobarbital (N. F.), usually available in capsules containing these or double amounts of the drugs.

Ephedrine Sulfate Jelly, Gelatum Ephedrinae Sulfatis, N. F., (Ephedrine Jelly).—Ephedrine sulfate (1 per cent) in tragacanth, methyl salicylate, eucalyptol, dwarf pine needle oil, glycerin and distilled water.

Ephedrine Sulfate Solution, Liquor Ephedrinae Sulfatis, N. F.—Ephedrine sulfate (3 per cent), chlorobutanol (0.5 per cent) and sodium chloride (36 per cent) in distilled water.

USES: For application to mucous membranes, dilute with equal volume of isotonic sodium chloride solution. (N. F.).

Ephedrine Sulfate Syrup, Syrupus Ephedrinae Sulfatis, N. F.—Ephedrine sulfate (0.4 per cent) in alcohol, syrup of cherry and distilled water.

DOSAGE: 4 cc. (N. F.).

Ephedrine Sulfate Tablets, Tabellae Ephedrinae, Sulfatis, U. S. P.—The usual sizes contain 15 mg., .5 mg. and 30 mg.

Epinephrine, Epinephrina, U. S. P.—$C_9H_{13}O_3N$.

A white or light brownish, microcrystalline, odorless powder that darkens on exposure to the air; very slightly soluble in water and in alcohol.

ACTION AND USES: Its effects correspond to stimulation of the sympathetic nerve in various organs, but it acts to a very unequal degree in different regions. It constricts the arterioles, resulting in a pronounced but fleeting rise of blood

pressure after intravenous injection and blanching of mucous membrane and other tissue on local application. This may be followed by dilatation, oozing or troublesome hemorrhage. It slows the heart and increases the force of its contraction, but overdoses cause fibrillation. It induces glycosuria. It is widely used with local anesthetics to delay their absorption and prolong their action. It is injected intravenously to raise the blood pressure in shock. It relieves paroxysms of asthma when sprayed into the larynx or injected hypodermically. Injected, 0.1 mg., directly into a heart that has stopped, it has occasionally restored the beat. Patients suffering with hyperthyroidism frequently show a much greater reaction to epinephrine than do normal persons. The toxic effects are manifested by tremors, palpitation and uneasiness. Oral doses are seldom effective.

DOSAGE: Hypodermic, 0.5 mg. The dosage varies widely with the purpose for which epinephrine is employed. Hypodermically, from 0.06 to 1 cc. of a solution of the hydrochloride (1 in 1,000), which should be diluted with sterile water. Locally, in solution varying in strength from 1 in 15,000 to 1 in 1,000.

Epinephrine Hydrochloride Inhalation, Inhalatio Epinephrinae Hydrochloridi, U. S. P.—Solution of epinephrine hydrochloride in distilled water.

Epinephrine Injection, Injectio Epinephrinae, U. S. P. (Epinephrine Hydrochloride Injection U. S. P. XII).—A sterile solution of epinephrine hydrochloride in water for injection. The usual sizes contain 1 cc., 10 cc. and 30 cc. of 1 : 1,000 solution.

Epinephrine Solution, Liquor Epinephrinae, U. S. P. (Epinephrine Solution 1 : 1,000, Solution of Epinephrine Hydrochloride U. S. P. XII).—A solution of epinephrine hydrochloride in distilled water, with a potency equivalent to a solution containing 1 Gm. of U. S. P. Epinephrine Reference Standard in each 1,000 cc.

A nearly colorless, slightly acid liquid, which gradually darkens on exposure to air and light. It must be well stoppered and protected from light. A solution that has become brown in color or contains a precipitate must not be used.

DOSAGE: By parenteral injection, 0.5 cc.

Ergonovine Maleate, Ergonovinae Maleas, U. S. P.

White, or faintly yellow, odorless, microcrystalline powder. It is affected by light. Soluble in water (1 in 36) and in alcohol (1 in 120).

ACTION AND USES: It is similar to ergotamine and ergotoxine in causing uterine contraction but is more rapidly

absorbed when given orally. It is used in the third stage of labor for the control of postpartum bleeding and is often effective in relieving migraine headaches.

DOSAGE: Intravenous or intramuscular, 0.2 mg.; oral, 0.5 mg. (U. S. P.).

Ergonovine Maleate Injection, Injectio Ergonovinae Maleatis, U. S. P.—A sterile solution of ergonovine maleate in water for injection.

DOSAGE: Intravenous or intramuscular, 0.2 mg. of ergonovine maleate (U. S. P.).

Ergonovine Maleate Tablets, Tabellae Ergonovinae Maleatis, U. S. P.—The usual sizes contain 0.2 mg. and 0.5 mg.

Ergot, Ergota, N. F. (Secale cornutum, P. I., Rye Ergot).

ACTION AND USES: Causes powerful tonic, sometimes tetanic contraction of the uterus. Used to check postpartum hemorrhage by contracting the uterus. Has also been tried in various other diseases but without benefit.

DOSAGE: 2 Gm.

Ergot Extract, Extractum Ergotae, N. F.—1 Gm. is made from 4 Gm. of ergot.

DOSAGE: 0.5 Gm.

Ergot Fluidextract, Fluidextractum Ergotae, U. S. P. (Extractum secalis cornuti fluidum acidum, P. I.).—Ergot (100 per cent). Alcoholic content about 40 per cent.

DOSAGE: 2 cc. (U. S. P.).

Prepared Ergot, Ergota Praeparata, N. F. (Powdered Defatted Ergot) Ergot which has been powdered and immediately defatted.

ACTION AND USES: Twice as strong as whole ergot; represents more completely than do extracts all the active principles of whole ergot, in solid concentrated form for internal administration.

DOSAGE: 0.3 Gm. (N. F.).

Ergotamine Tartrate, Ergotaminae Tartras, U. S. P.—The tartrate of an alkaloid obtained from ergot.

Colorless crystals or white, crystalline powder, usually containing solvent of crystallization. Soluble in water (1 in 500) and in alcohol (1 in 500).

ACTION AND USES: Used to produce uterine contraction and of value in many cases of migraine.

DOSAGE: Intramuscular, 0.5 mg.; oral, 1 mg. (U. S. P.).

Ergotamine Tartrate Tablets, Tabellae Ergotaminae Tartratis, U. S. P.—The usual sizes contain 0.5 mg. and 1 mg.

Eriodictyon, Eriodictyon, N. F. (Yerba Santa).—Dried leaf.

ACTION AND USES: Used to mask the taste of quinine and said to be expectorant.

Eriodictyon Fluidextract, Fluidextractum Eriodictyi, U. S. P. (Yerba Santa Fluidextract).—Eriodictyon (100 per cent). Alcoholic content about 60 per cent.

DOSAGE: 1 cc.

Aromatic Eriodictyon Syrup, Syrupus Eriodictyi Aromaticus, N. F. (Aromatic Yerba Santa Syrup, Syrupus Corrigens).—Eriodictyon fluidextract, potassium hydroxide solution, compound cardamom tincture, sassafras oil, lemon oil, clove oil, alcohol, sucrose, magnesium carbonate and distilled water. Alcoholic content about 7 per cent.

DOSAGE: 8 cc. (N. F.).

Erythrityl Tetranitrate, Erythritylis Tetranitras

Erythrityl Tetranitrate Tablets, Tabellae Erythritylis Tetranitratis, U. S. P. (Erythrol Tetranitrate Tablets, Tetranitrol Tablets).—The usual sizes contain 15 mg. and 30 mg. of erythrityl tetranitrate [$C_4H_6(NO_3)_4$].

Partially soluble in alcohol and in ether (*erythrityl tetranitrate*), and partially soluble in water (*lactose*).

ACTION AND USES: Used to dilate blood vessels and reduce high blood pressure and for the relief and prophylaxis of angina pectoris attacks.

DOSAGE: 30 mg. of erythrityl tetranitrate (U. S. P.).

Estradiol, Estradiol, U. S. P. (Dihydrotheelin, Oestradiol).—$C_{18}H_{24}O_2$.

White or slightly yellow, small crystals or crystalline powder, odorless and stable in air; almost insoluble in water, soluble in alcohol, in acetone, in dioxane and in solutions of fixed alkalies; sparingly soluble in vegetable oils. It melts between 173 and 179 C.

ACTION AND USES: A potent estrogenic compound used for the same indications recognized for estrogens in general. It is used for menopausal symptoms and certain sequelae of the menopause such as kraurosis of vulva, senile vaginitis and pruritus vulvae.

DOSAGE: 0.2 mg. (U. S. P.).

Estradiol Benzoate, Estradiolis Benzoas, U. S. P. (Oestradiol Benzoate)—$C_{25}H_{28}O_3$.

White or slightly yellow to brownish, crystalline powder. Odorless and stable in air. Almost insoluble in water; soluble in alcohol, in acetone and in dioxane. Slightly soluble in ether and sparingly soluble in sesame and other vegetable oils.

ACTION AND USES: Same as for Estradiol, but soluble in oil for injection.

DOSAGE: 1 mg. (U. S. P.), once or twice weekly, intramuscularly in oil solution.

Estrone, Estronum, U. S. P. (Theelin, Oestrone).—$C_{18}H_{22}O_2$.

Small, white crystals or white, crystalline powder. Odorless and stable in air. Slightly soluble in water. Soluble in alcohol, in acetone, in dioxane and in solutions of fixed alkali hydroxides.

ACTION AND USES: Used for its estrogenic properties.

DOSAGE: 1 mg. (U. S. P.).

Ether, Aether, U. S. P. (Ethyl Ether, Diethyl Ether).—Contains about 97 per cent $(C_2H_5)_2O$.

A clear, colorless, very inflammable liquid with a characteristic odor and a burning, sweetish taste. Soluble in water (1 in 12 by volume) and miscible with alcohol, chloroform, petroleum benzine and benzene and with fixed or volatile oils.

The Pharmacopeia includes the following caution for ether: *Ether to be used for anesthesia must be preserved in tight containers of not more than 3 Kg. capacity and is not to be used for anesthesia if it has been removed from the original container longer than 24 hours. Ether to be used for anesthesia may, however, be shipped in larger containers for repacking in containers as directed above, provided the ether at the time of repackaging meets the requirements of the tests of this Pharmacopoeia.*

ACTION AND USES: General anesthetic, administered by inhalation; when administered by mouth, carminative.

DOSAGE: 1 cc.

Ethyl Oxide, Aethylis Oxidum, U. S. P.—(Solvent Ether).—About 97 per cent $(C_2H_5)_2O$.
Caution: Ethyl Oxide must not be used for anesthesia.—U. S. P.

Ether Spirit, Spiritus Aetheris, N. F. (Hoffmann's Drops).—Ethyl oxide (32.5 per cent) in alcohol. Alcoholic content about 63 per cent.
USES: Carminative and stimulant.
DOSAGE: 4 cc. (N. F.).

Compound Ether Spirit, Spiritus Aetheris Compositus, N. F. (Hoffmann's Anodyne).—Ethyl oxide (32.5 per cent), ethereal oil (2.5 per cent) and alcohol. Alcoholic content about 60 per cent.
USES: A superfluous modification of ether spirit.
DOSAGE: 4 cc. (N. F.).

Ethereal Oil, Oleum Aethereum, N. F.—A volatile liquid consisting of equal volumes of heavy oil of wine (chiefly ethyl esters of sulfuric acid) and ether. An indefinite and obsolete article used as an ingredient of compound ether spirit (See under **Ether**).

Ethyl Acetate, Aethylis Acetas, N. F. (Acetic Ether).

A transparent colorless, fragrant liquid, with a burning taste.
ACTION AND USES: Carminative, similar to ether and without special advantage.
DOSAGE: 1 cc. (N. F.).

Ethyl Aminobenzoate, Aethylis Aminobenzoas, U. S. P. (Benzocaine).—$C_6H_4.NH_2.CO.OC_2H_5$.

A white, crystalline, odorless powder; it is tasteless but produces a sensation of numbness when placed on the tongue. It is very

slightly soluble in water but freely soluble in alcohol. The solution in oil may be sterilized by heating.

ACTION AND USES: Owing to its comparative insolubility it can be safely used on painful wounds and ulcers of the skin to induce fairly lasting local anesthesia and on accessible mucous membranes (not those of the gastrointestinal tract).

DOSAGE: 0.3 Gm.

Ethyl Aminobenzoate Ointment, Unguentum Aethylis Aminobenzoatis, U. S. P.—Ethyl aminobenzoate (5 per cent) incorporated with white ointment (95 per cent).

Ethyl Chloride, Aethylis Chloridum, U. S. P.—C_2H_5Cl.

A colorless extremely volatile liquid with an agreeable odor and a sweetish, burning taste. The vapor is very inflammable. Slightly soluble in water and freely soluble in alcohol.

ACTION AND USES: Local anesthetic for minor operations, in the form of a spray for refrigeration. Has been used by inhalation as a general anesthetic in short operations.

Caution: Ethyl Chloride is very inflammable and must not be used near a flame.—U. S. P.

Nitrous Ether, Aethylis Nitris.—Ethyl nitrite.

Ethyl Nitrite Spirit, Spiritus Aethylis Nitritis, N. F.—(Spirit of Nitrous Ether, Sweet Spirit of Nitre.)—Ethyl nitrite (about 4 per cent) in alcohol. Alcoholic content about 90 per cent.

ACTION AND USES: Popularly used as a weak diuretic and diaphoretic. Unstable and therefore unreliable. Has the physiologic action of a weak nitrate.

DOSAGE: 2 cc. (N. F.).

Ethylene, Aethylenum, U. S. P.—$CH_2 : CH_2$.

A colorless gas somewhat lighter than air, with a slightly sweet odor and taste. Dissolves in water (1 in 9 by volume); in alcohol (1 in 0.5 by volume).

ACTION AND USES: Inhalation anesthetic; markedly analgesic.

Caution: Ethylene is inflammable and a mixture of it with oxygen or air will explode when brought in contact with a flame or other causes of ignition. (U. S. P.).

Ethylenediamine Solution, Liquor Aethylenediaminae, U. S. P.—Contains about 69 per cent ethylenediamine, $H_2NCH_2CH_2NH_2$.

Clear, colorless or only slightly yellow liquid having an ammonia-like odor and a strong alkaline reaction. Miscible with water and with alcohol.

ACTION AND USES: Employed as a pharmaceutic solvent for medicinal substances, notably the xanthines. Its toxicity is low.

Ethylhydrocupreine Hydrochloride, Aethylhydrocupreinae Hydrochloridum, N. F.—Contains not less than 90 per cent $C_{21}H_{25}O_2N_2$ (base).

A white or yellowish white, odorless, crystalline powder having a very bitter taste. Soluble in water (1 in 2), in alcohol (1 in 5) and in chloroform (1 in 2.5).

ACTION AND USES: Used as a specific antiseptic in treatment of pneumococcus infection of the eye (ulcus corneae serpens). It produces local anesthesia and is an antimalarial, but it is more prone than quinine to cause tinnitus, amblyopia or amaurosis, and even permanent impairment of vision. Should be used cautiously.

DOSAGE: Oral administration is not recommended. Freshly prepared 1 to 2 per cent solution may be dropped into the conjunctival sac.

Ethylmorphine Hydrochloride, Aethylmorphinae Hydrochloridum, U. S. P.

A white or faintly yellow, odorless powder with a slightly bitter taste. Freely soluble in water (1 in 10) and soluble in alcohol (1 in 25).

ACTION AND USES: Systemically, intermediate between those of morphine and codeine; probably possesses no advantage over codeine for internal use. When applied to the eye it causes local hyperemia terminating in acute conjunctival edema.

DOSAGE: 15 mg. (U. S. P.). Used as 10 per cent ointment or solution in corneal opacity and similar conditions.

Eucaine Hydrochloride, Eucainae Hydrochloridum, N. F. (Betaeucaine Hydrochloride).

A white, odorless powder. Soluble in water (1 in 30) and sparingly soluble in alcohol (1 in 35).

ACTION AND USES: Local anesthetic, in a 2 or 3 per cent solution for the eye or 5 to 10 per cent solution for the nose and throat.

Eucalyptol, Eucalyptol, U. S. P. (Cineol).—A constituent of the volatile eucalyptus oil.

A colorless liquid with characteristic odor and pungent cooling taste. Soluble in alcohol and miscible with fixed or volatile oils.

ACTION AND USES: Employed as a local stimulant antiseptic and as a constituent of inhalations, particularly oily sprays. The latter may produce lipid pneumonia through the indiscriminate use of mineral oil.

DOSAGE: 0.3 cc.

Eucalyptus Oil, Oleum Eucalypti, U. S. P.—A volatile oil. It contains not less than 70 per cent of eucalyptol.

Soluble (1 in 5) in 70 per cent alcohol.

ACTION AND USES: Largely used, especially for inhalation in the form of vapor or oily sprays (about 10 per cent), as an antiseptic and deodorant for subacute and chronic inflammations of the respiratory mucosae.

DOSAGE: 0.5 cc. (U. S. P.)

Eucatropine Hydrochloride, Eucatropinae Hydrochloridum, U. S. P.—

White, granular, odorless powder. Very soluble in water, freely soluble in alcohol.

ACTION AND USES: It produces prompt mydriasis free from anesthetic action, pain, corneal irritation or increase in intraocular tension, with little or no effect on accommodation. It is similar to atropine and used in place of it in eye examinations.

DOSAGE: From 2 to 3 drops of a 5 to 10 per cent solution depending on the age of the patient and the nature of the case.

Eugenol, Eugenol, U. S. P.—A phenol from clove oil and other sources.

A nearly colorless, thin liquid, with strong odor of cloves and pungent, spicy taste; slightly soluble in water, miscible with alcohol and with fixed oils.

ACTION AND USES: Same as those of clove oil.

DOSAGE: 0.1 cc.

Eupatorium, Eupatorium, N. F. (Boneset, Thoroughwort).—Leaves and flowering tops.

ACTION AND USES: Domestic diaphoretic "tea."

DOSAGE: 2 Gm. (N. F.).

Fennel, Foeniculum, N. F. (Fennelseed).

ACTION AND USES: Aromatic and carminative.

DOSAGE: 1 Gm. (N. F.).

Fennel Oil, Oleum Foeniculi, U. S. P.—A volatile oil.

Freely soluble in alcohol (1 in 8).

Note: If solid material has separated, carefully warm the oil at a low temperature until it is completely liquefied and thoroughly mix it before using. (U. S. P.)

ACTION AND USES: Aromatic carminative, employed with purgative medicines to prevent griping.

DOSAGE: 0.1 cc.

Fennel Water, Aqua Foeniculi, U. S. P.—A saturated solution of fennel oil in water.

DOSAGE: 15 cc.

Ferric Ammonium Citrate, Ferri Ammonii Citras, U. S. P. (Iron and Ammonium Citrates, U. S. P. XII).—Iron citrate rendered more readily soluble by the presence of ammonium citrate. Contains about 17 per cent iron.

Thin, transparent, garnet-red, odorless scales or granules, with a saline, mildly ferruginous taste. Very soluble in water; insoluble in alcohol.

ACTION AND USES: Hematinic, practically nonastringent. Has the general properties of iron salts that are principally used internally for the treatment of iron deficiency anemia.

DOSAGE: 1 Gm. (U. S. P.).

Ferric Ammonium Citrate Capsules, Capsulae Ferri Ammonii Citratis, U. S. P. (Iron and Ammonium Citrates Capsules, U. S. P. XII).—The usual size contains 0.5 Gm.

Green Ferric Ammonium Citrate, Ferri Ammonii Citras Viridis, N. F.—Equivalent to about 15 per cent iron.

Thin, transparent, green scales or granules, odorless and with a saline, mildly ferruginous taste. Deliquescent in air. Readily soluble in water and insoluble in alcohol.

ACTION AND USES: Hematinic.

Green Ferric Ammonium Citrate Ampules, Ampullae Ferri Ammonii Citratum Viridum, N. F. (Iron Citrate Ampuls, Green).— Contain a sterile solution of green ferric ammonium citrate and may contain 0.5 per cent quinine and urea hydrochloride, in water for injection, and yield iron equal to about 15 per cent of the labeled amount of green ferric ammonium citrate.

DOSAGE: 0.1 Gm. of green ferric ammonium citrate (N. F.).

Ferric Cacodylate, Ferri Cacodylas, N. F. (Iron Cacodylate).—$Fe[(CH_3)_2AsO_2]_3$.—Contains about 13.5 per cent iron and about 43 per cent arsenic, when dried at 105 C.

Yellowish, amorphous powder which is soluble in water (1 in 30) and very slightly soluble in alcohol.

ACTION AND USES: Irrational compound of iron and arsenic, the combination of which has no therapeutic advantage. The cacodylates impart a garlic odor to the breath, and because inorganic arsenic is rapidly freed by the hydrochloric acid of the stomach, they are more toxic, dose for dose, by oral administration than by injection. By the latter method, they are less toxic than inorganic compounds, because of their slow conversion to that form. Their use for tonic or hematinic purposes is unjustified and may be harmful. They are not efficacious in the treatment of syphilis.

DOSAGE: 60 mg. (N. F.).

Ferric Cacodylate Ampuls, Ampullae Ferri Cacodylatis, N. F. (Iron Cacodylate Ampuls).—A sterile solution of ferric cacodylate in water for injection containing arsenic in an amount equivalent to about 43 per cent of the labeled amount of ferric cacodylate.

DOSAGE: 60 mg. of ferric cacodylate (N. F.). This dose provides only about one-third the therapeutic effect of the official oral dose.

Ferric Chloride, Ferri Chloridum.

Ferric Chloride Solution, Liquor Ferri Chloridi, N. F. (Iron Perchloride Solution).—Contains about 10.5 per cent iron and about 4 per cent hydrochloric acid.

Yellowish brown liquid, having a faint odor of hydrochloric acid and an acid reaction. Miscible in all proportions with alcohol.

ACTION AND USES: Used for making the tincture.

DOSAGE: 0.1 cc. (N. F.).

Ferric Chloride Tincture, Tinctura Ferri Chloridi, N. F. (Iron Tincture).—Ferric chloride (about 13 per cent) corresponding to not less

than 4.5 per cent of iron. Made by diluting ferric chloride solution (35 per cent) with alcohol. Alcoholic content about 61 per cent.

ACTION AND USES: Astringent, especially as an application to the throat, but very injurious to the teeth. Hematinic but relatively irritant.

DOSAGE: 0.6 cc. (N. F.).

Iron Citrochloride, Ferri Citrochloridum.

Ferric Citrochloride Tincture, Tinctura Ferri Citrochloridi, N. F.—A tincture of a complex iron salt containing about 4.5 per cent iron and rendered nonstyptic by the presence of a citrate. Made from ferric chloride solution (35 per cent), sodium citrate (45 per cent), alcohol and water. Alcoholic content about 14 per cent.

DOSAGE: 0.5 cc. (N. F.).

Ferric Glycerophosphate, Ferri Glycerophosphas, N. F.

Orange to greenish yellow scales or powder, odorless and nearly tasteless. Slowly soluble in water (1 in 2) and insoluble in alcohol.

ACTION AND USES: Hematinic without advantage over the ordinary iron salts.

DOSAGE: 0.2 Gm. (N. F.).

Ferric Hypophosphite, Ferri Hypophosphis, N. F.

White or grayish white, odorless and nearly tasteless powder. Very slightly soluble in water (1 in 2,300).

ACTION AND USES: Hematinic, without advantage over the ordinary iron salts. *Caution should be observed in compounding ferric hypophosphite with other substances as an explosion may occur if it is triturated or heated with nitrates, chlorates or other oxidizing agents. (N. F.).*

DOSAGE: 0.2 Gm. (N. F.).

Red Ferric Oxide, Ferri Oxidum Rubrum, N. F.—Contains not less than 90 per cent of ferric oxide calculated on the basis of the ignited product.

Reddish brown powder insoluble in water or in the organic solvents; it is soluble in hydrochloric acid on warming, a small amount of insoluble residue usually remaining.

ACTION AND USES: Used in making Prepared Neocalamine.

Yellow Ferric Oxide, Ferri Oxidum Flavum, N. F.—Contains not less than 97.5 per cent ferric oxide, calculated on the basis of the ignited product.

Yellowish orange powder insoluble in water or in the organic solvents; soluble in hydrochloric acid on warming, a small amount of insoluble residue usually remaining.

ACTION AND USES: Used in making Prepared Neocalamine.

Soluble Ferric Phosphate, Ferri Phosphas Solubilis, N. F. (Ferric Phosphate with Sodium Citrate.)—Ferric phosphate rendered soluble by sodium citrate. Contains about 13 per cent iron.

Thin, bright green, transparent, odorless scales with an acidulous, slightly saline taste. Freely soluble in water; insoluble in alcohol.

ACTION AND USES: Hematinic. Only slightly astringent.

DOSAGE: 0.25 Gm. (N. F.).

Ferric Subsulfate, Ferri Subsulfas.

Ferric Subsulfate Solution, Liquor Ferri Subsulfatis, N. F. (Monsel's Solution, Basic Ferric Sulfate Solution).

USES: Local styptic and astringent.

DOSAGE: Use it undiluted. (N. F.).

Ferric Sulfate, Ferri Tersulfas.

Ferric Sulfate Solution, Liquor Ferri Tersulfatis, N. F. (Iron Tersulfate Solution).—A solution containing $Fe_2(SO_4)_3$ corresponding to about 10 per cent iron.

USES: For making pharmaceutic preparations.

Ferrous Carbonate, Ferri Carbonas.

Ferrous Carbonate Mass, Massa Ferri Carbonatis, N. F. (Vallet's Mass).—Contains ferrous carbonate (39 per cent) with sucrose, honey and syrup.

DOSAGE: 0.6 Gm. (N. F.).

Ferrous Carbonate Pills, Pilulae Ferri Carbonatis, N. F. (Chalybeate Pills, Blaud's Pills, Ferruginous Pills).—Each pill contains 60 mg. ferrous carbonate.

USES: Hematinic.

DOSAGE: 5 pills (N. F.). Ten pills would contain about 300 mg. of metallic iron, the modern daily dosage.

Saccharated Ferrous Carbonate, Ferri Carbonas Saccharatus, N. F.—Ferrous carbonate (not less than 15 per cent) preserved with lactose and sucrose.

A light olive-gray, odorless powder with a taste at first sweet, afterward ferruginous.

ACTION AND USES: Hematinic, like other iron salts; practically nonastringent and nonirritating.

DOSAGE: 0.25 Gm. (N. F.).

Saccharated Ferrous Carbonate Capsules, Capsulae Ferri Carbonatis Saccharatis, N. F.—Contain an amount of ferrous carbonate equal to about 15 per cent of the labeled amount of saccharated ferrous carbonate.

ACTION AND USES: Hematinic; supplies 15 per cent anhydrous ferrous carbonate which furnishes about 48 per cent iron, so that about 2 Gm. is required to provide a total daily amount of 1 Gm. metallic iron.

DOSAGE: 0.25 Gm. saccharated ferrous carbonate (N. F.). Eight such capsules furnish 1 Gm. metallic iron.

Ferrous Gluconate, Ferri Gluconas, N. F.—$Fe(C_6H_{11}O_7)_2.H_2O$.—Contains not less than 11.5 per cent iron, when dried at 105 C.

Fine, yellowish gray or pale greenish yellow powder with a slight odor of burned sugar. An aqueous solution (1 in 20) is acid to litmus paper. Soluble in water (1 in 4) but nearly insoluble in alcohol.

ACTION AND USES: Hematinic, like other iron salts. Supplies about 11.5 per cent iron, so that about 8.7 Gm. is required to provide a total daily amount of 1 Gm. metallic iron.

DOSAGE: 0.3 Gm. (N. F.). Approximately twenty-nine such doses furnish 1 Gm. metallic iron.

Ferrous Iodide, Ferri Iodidum.

Ferrous Iodide Syrup, Syrupus Ferri Iodidi, N. F. (Syrupus ferrosi iodidi concentratus, P. I.). Ferrous iodide (about 7 per cent) with iron (0.2 per cent), iodine, hypophosphorous acid (0.5 per cent), sucrose and water.

DOSAGE: 1 cc. N. F.

Note: For the purpose of retarding discoloration, 1.3 per cent of citric acid may replace the hypophosphorous acid in the above formula.

Ferrous Sulfate, Ferri Sulfas, U. S. P. (Iron Sulfate).—$FeSO_4.7H_2O$.

Pale bluish green, odorless crystals with a saline, styptic taste. Freely soluble in water (1 in 1.5), insoluble in alcohol.

ACTION AND USES: Hematinic, especially in pills. Formerly used extensively as a disinfectant but is only deodorant.

DOSAGE: 0.3 Gm. (U. S. P.).

Ferrous Sulfate Syrup, Syrupus Ferri Sulfatis, N. F.—Contains hydrous ferrous sulfate 4 per cent with citric acid, peppermint spirit and sucrose in distilled water.

ACTION AND USES: Hematinic, like other iron salts. Supplies 4 per cent hydrous ferrous sulfate which furnishes about 20 per cent iron, so that about 125 cc. is required to provide a total daily dose of 1 Gm. metallic iron.

DOSAGE: 8 cc. One average metric dose contains 0.32 Gm. ferrous sulfate (N. F.). Fifteen such doses are required to furnish 1 Gm. metallic iron.

Exsiccated Ferrous Sulfate, Ferri Sulfas Exsiccatus, U. S. P. (Dried Ferrous Sulfate).—Contains not less than 80 per cent anhydrous ferrous sulfate ($FeSO_4$).

Grayish white powder. Dissolves slowly in water. Insoluble in alcohol.

DOSAGE: 0.2 Gm. (U. S. P.).

Ferrous Sulfate Tablets, Tabellae Ferri Sulfatis, U. S. P.—The usual size contains 0.3 Gm.

Fluorescein Sodium, Fluoresceinum Sodicum, U. S. P. (Soluble Fluorescein, Resorcinolphthalein Sodium).—Disodium salt of fluorescein.

An orange red, odorless, almost tasteless powder. Freely soluble in water and sparingly soluble in alcohol.

ACTION AND USES: Diagnostic for corneal lesions and foreign bodies in the eye.

DOSAGE: Fluorescein sodium 2 Gm. and sodium bicarbonate 3 Gm. in 100 cc. of water for ophthalmologic use.

Formaldehyde, Formaldehydum.

Formaldehyde Solution, Liquor Formaldehydi, U. S. P.—HCHO (not less than 37 per cent) with methanol and water.

ACTION AND USES: A powerful germicide, especially valuable in the form of gas for its penetrating power. Its irritant actions generally preclude its use on the body. It produces reddening, inflammation and necrosis if applied repeatedly or continually. It should not be used internally.

Formic Acid, Acidum Formicum, N. F.—HCOOH (about 25 per cent). A clear, colorless liquid with a characteristic pungent odor and a strongly acid taste.

ACTION AND USES: Externally as caustic irritant. Has no advantage over other counterirritants, such as mustard.

DOSAGE: 0.3 cc. (N. F.).

Formic Acid Spirit, Spiritus Acidi Formici, N. F.—Formic acid (4 per cent) in distilled water and alcohol. Alcoholic content about 70 per cent.

USES: Rubefacient.

DOSAGE: 4 cc. (N. F.).

Gambir, Gambir, N. F. (Pale Catechu).—A dried extract.

ACTION AND USES: Astringent; formerly used against diarrhea in form of tincture.

DOSAGE: 0.5 Gm. (N. F.).

Compound Gambir Tincture, Tinctura Gambir Composita, N. F. (Compound Pale Catechu Tincture).—Gambir (20 per cent) with cinnamon in diluted alcohol and glycerin. Alcoholic content about 78 per cent.

DOSAGE: 2 cc. (N. F.)

Gamboge, Cambogia, N. F.—A gum resin obtained from Garcinia Hanburyi Hooker, which yields not less than 65 per cent of alcohol-soluble extractive.

Weak reddish brown to dark orange cylindric pieces, frequently hollow at the center.

ACTION AND USES: A powerful, drastic hydragogue cathartic, chiefly for veterinary use in cattle. Its use in human beings is seldom if ever indicated.

DOSAGE: Human (Adults), 0.125 Gm. Cattle, 15.0 Gm. (N. F.).

Gas Gangrene Antitoxin, Antitoxinum Gas-gangraenosum. *Bivalent Gas Gangrene Antitoxin, Antitoxinum Gas-gangraenosum Bivalens, U. S. P.*—A sterile solution of antitoxic substances from the blood of healthy animals, which have been immunized against Clostridium perfringens and Clostridium septicum toxins. Each package shall contain not less than 10,000 antitoxic units of each of the component antitoxins. Complies with the requirements of the National Institute of Health.

A transparent or slightly opalescent liquid, of faint brownish, yellowish or greenish color.

ACTION AND USES: Used in the prevention and treatment of gas gangrene. Its clinical efficiency is not definitely established.

DOSAGE: Parenteral, therapeutic or prophylactic, the contents of one or more packages as the initial dose (U. S. P.). Usually 10,000 to 40,000 units each of the two component antitoxins are administered intramuscularly or intravenously (latter preferred); repeated, according to the symptoms, every twelve to twenty-four hours or less.

Pentavalent Gas Gangrene Antitoxin, Antitoxinum Gasgangraenosum Pentavalens, U. S. P.—A sterile solution of antitoxic substances from the blood of healthy animals which have been immunized against the toxins of Clostridium perfringens, Clostridium septicum, Clostridium oedematiens (Novyi), Clostridium bifermentans (Sordelli) and Clostridium histolyticum. Each package shall contain not less than 10,000 units each of Cl. perfringens and Cl. septicum antitoxins, 3,000 units of Cl. histolyticum antitoxin and 1,500 units each of Cl. oedematiens (Novyi) and Cl. bifermentans (Sordelli) antitoxins. Complies with the requirements of the National Institute of Health.

A transparent or slightly opalescent liquid, of faint brownish, yellowish or greenish color.

ACTION AND USES: Used for protection or treatment against gas gangrene. Its clinical value is unestablished.

DOSAGE: Parenteral, therapeutic or prophylactic, the contents of one or more packages as the initial dose (U. S. P.). This should be not less than 10,000 units each of Cl. perfringens and Cl. septicum, 3,000 units of Cl. histolyticum and 1,500 units each of Cl. oedematiens (Novyi) and Cl. bifermentans (Sordelli); two to four times this dose may be repeated after one to four or more hours as indicated by symptoms.

Trivalent Gas Gangrene Antitoxin, Antitoxinum Gasgangraenosum Trivalens, U. S. P.—A sterile solution of antitoxic substances obtained from the blood of healthy animals which have been immunized against the toxins of Clostridium perfringens, Clostridium septicum and Clostridium oedematiens (Novyi). Each package shall contain not less than 10,000 units of Cl. perfringens and Cl. septicum antitoxins and 1,500 units of Cl. oedematiens (Novyi) antitoxin. Complies with the requirements of the National Institute of Health.

A transparent or slightly opalescent liquid of faint brownish, yellowish or greenish color.

ACTION AND USES: Used against gas gangrene as a preventative or therapeutic agent. Its clinical value is questionable.

DOSAGE: Parenteral, therapeutic or prophylactic, the contents of one or more packages as the initial dose (U. S. P.). This should be not less than that for the corresponding component antitoxins of pentavalent gas gangrene antitoxin.

Gauze.

Absorbent Gauze, Carbasus Absorbens, U. S. P. (Gauze, Plain Gauze, Nonsterilized Absorbent Gauze).—Consists of well bleached cotton cloth of plain weave.

White cotton cloth of various thread counts and weights classified as types I to VII.

Adhesive Absorbent Gauze, Carbasus Absorbens Adhaesivus, U. S. P. (Adhesive Absorbent Compress.)

An individual dressing prepared by affixing a plain absorbent compress to a strip of adhesive plaster. The compress shall be composed of at least four layers of type I absorbent gauze or shall be of other absorbent cellulosic material covered with a layer of absorbent gauze. The absorbent gauze shall be substantially free of loose threads or ravelings. The adhesive plaster may be perforated over the compress, and the back may be coated with a water-repellent film.

The adhesive surface must be protected by strips of crinoline or other protective material of not less than the same width as the dressing which overlaps to protect each absorbent compress.

Adhesive Absorbent Gauze must be sterile and be protected from contamination by suitable packaging.

Sterile Absorbent Gauze, Carbasus Absorbens Sterilis, U. S. P. (Sterile Gauze).—Gauze which has been rendered sterile and protected from contamination. It may be supplied in various lengths and widths and in the form of rolls or folds.

Gauze Bandage, Ligamentum Carbasi Absorbentis, U. S. P. (Roller Gauze Bandage).—Prepared from type I absorbent gauze in various widths and lengths. Each bandage is in one continuous piece, tightly rolled and substantially free of loose threads and ravelings. It must be sterile and protected from contamination.

Gelatin, Gelatinum, U. S. P.—A product obtained by the partial hydrolysis of collagen derived from skin, ligaments and bones.

Insoluble in cold water but swells and softens when immersed in it; soluble in hot water, in acetic acid and in glycerin; insoluble in alcohol and similar solvents.

ACTION AND USES: Used as a food. A solution in glycerin is used in the preparation of bandages for chronic ulcers. Sometimes contains tetanus spores.

Glycerinated Gelatin, Gelatinum Glycerinatum, U. S. P.—Equal parts of gelatin and glycerin in water.

USES: Base for suppositories, bougies, etc.

Gelsemium, Gelsemium, N. F. (Yellow Jasmine Root).

ACTION AND USES: Sedative, motor depressant and diaphoretic of uncertain efficacy; formerly used in neuralgia, chorea and muscular spasms. Untoward symptoms sometimes result from comparatively small doses.

DOSAGE: 30 mg. (N. F.), administered as the fluidextract or tincture. (Not used as such).

Gelsemium Fluidextract, Fluidextractum Gelsemii, N. F.—Gelsemium (100 per cent). Alcoholic content about 65 per cent.

DOSAGE: 0.03 cc. (N. F.).

Gelsemium Tincture, Tinctura Gelsemii, N. F.—Gelsemium (10 per cent) in alcohol and water. Alcoholic content about 73 per cent.

DOSAGE: 0.3 cc. (N. F.).

Gentian, Gentiana, U. S. P. (Gentian Root).—Rhizome and roots, dried.

ACTION AND USES: Probably the most widely used of the simple bitters.

DOSAGE: 1 Gm.

Gentian Elixir, Elixir Gentianae, N. F.—Gentian fluidextract (3.5 per cent), compound cardamom spirit, sodium citrate, glycerin, syrup, alcohol and distilled water. Alcoholic content about 15.5 per cent.

USES: An agreeable aromatic bitter stomachic.

Glycerinated Gentian Elixir, Elixir Gentianae Glycerinatum, N. F.—Gentian fluidextract (1 per cent), taraxacum fluidextract (1.5 per cent), ethyl acetate, phosphoric acid, sweet orange peel tincture, compound cardamom tincture, glycerin, sucrose raspberry syrup, alcohol and distilled water. Alcoholic content about 13.5 per cent.

Gentian Extract, Extractum Gentianae, N. F.—1 Gm. represents 2 Gm. gentian. The powder and pilular forms are both official.

DOSAGE: 0.5 Gm. (N. F.).

Gentian Fluidextract, Fluidextractum Gentianae, N. F.—Gentian (100 per cent). Alcoholic content about 36 per cent.

DOSAGE: 1 cc. (N. F.).

Compound Gentian Tincture, Tinctura Gentianae Composita, U. S. P.—Gentian (10 per cent), bitter orange peel and cardamom seed in glycerin, alcohol and distilled water. Alcoholic content about 45 per cent.

USES: Aromatic bitter.

DOSAGE: 4 cc. (U. S. P.).

Ginger, Zingiber, U. S. P.—Dried rhizomes.

ACTION AND USES: Flavor, carminative, aromatic and stimulant to the gastrointestinal tract, because of the irritating action of the volatile oil and resin.

DOSAGE: 0.6 Gm. (U. S. P.).

Ginger Fluidextract, Fluidextractum Zingiberis, U. S. P.—Ginger (100 per cent). Alcoholic content about 73 per cent.

DOSAGE: 0.6 cc. (U. S. P.).

Ginger Oleoresin, Oleoresina Zingberis, N. F.

DOSAGE: 30 mg. (N. F.).

Ginger Syrup, Syrupus Zingiberis, N. F.—Ginger fluid extract (3 per cent) in alcohol, magnesium carbonate, sucrose and distilled water. Alcoholic content about 4 per cent.

DOSAGE: 10 cc. (N. F.).

Human Immune Globulin, Globulinum Immune Humanum, U. S. P.—A sterile solution of antibodies obtained from the placentae expelled by healthy women. Each preparation shall be composed of a pool from at least ten persons. Human immune globulin complies with the requirements of the National Institute of Health of the United States Public Health Service.

Transparent or slightly opalescent liquid of a faint brownish, yellowish or greenish color. Nearly odorless or has an odor due to the presence of a preservative; it may have a slight, granular deposit. It must be free from harmful substances detectable by animal inoculation and must not contain an excessive proportion of preservative (not more than 0.5 per cent of phenol or not more than 0.4 per cent of cresol if either of these is used).

ACTION AND USES: Used primarily for the prevention of measles.

DOSAGE: Intramuscular, for prevention, 2 to 10 cc.; for modification, 2 to 5 cc. (U. S. P.). For modification the injection is made after exposure with the hope of modifying the disease for the development of active immunity.

Liquid Glucose, Glucosum Liquidum, U. S. P. (Glucosum U. S. P. XI, Glucose U. S. P. XI).—Chiefly dextrose (*d*-glucose), maltose, dextrins and water.

Colorless or nearly colorless, odorless or nearly odorless, thick, syrupy, sweet liquid. Very soluble in water, sparingly soluble in alcohol.

ACTION AND USES: Pill excipient. It is not used medicinally. (See Dextrose for medicinal dextrose.)

Glycerin, Glycerinum, U. S. P. (Glycerol).—$C_3H_5(OH)_3$.

A colorless, syrupy, practically odorless liquid with a sweet taste, producing a sensation of warmth in the mouth. Miscible with water and alcohol; insoluble in chloroform or ether.

ACTION AND USES: Used as solvent, sweetening agent, demulcent and emollient. The enema and suppositories are promptly acting evacuants.

DOSAGE: 4 cc.

Glycerin Suppositories, Suppositoria Glycerini, U. S. P.—Glycerin with sodium stearate and distilled water. The size for adults contains about 3 Gm. glycerin; for infants, about 2 Gm.

USES: Rectal evacuant.

Glycerogelatins, Glycerogelatina, N. F.—Soft masses, melting at the body temperature, composed of gelatin, glycerin, water and a medicament suitable for application in dermatologic practice, such as salicylic acid, iodoform, resorcinol, chrysarobin and, in some cases, with the addition of zinc oxide.

Glyceryl Monostearate, Glycerylis Monostearas, N. F. (Monostearin).

A white, waxlike solid or as beads or flakes. It has a slight fatty odor and taste and is affected by light. It is insoluble in water but may be dispersed with the aid of soap or other agents. Dissolves in hot organic solvents.

ACTION AND USES: A pharmaceutic and cosmetic emulsion adjunct used in the preparation of stable creams, ointment bases and liquid emulsions. The last-mentioned type of preparation can be stabilized by about 0.5 per cent glyceryl monostearate. The pure compound is not effective as an emulsifier unless dispersed by the aid of soap or other effective surface-active agent. Its presence in preparations is said to require their preservation with esters of *p*-hydroxybenzoic acid or similar agents.

Glyceryl Triacetate, Glycerylis Triacetas, U. S. P. (Triacetin).—$C_9H_{14}O_6$.

Colorless, somewhat oily liquid with a slight, fatty odor and a bitter taste. Soluble in water. Miscible with alcohol, with ether and with chloroform and insoluble in carbon disulfide.

ACTION AND USES: Used as a solvent.

Glyceryl Trinitrate, Glycerylis Trinitras (Nitroglycerin, Trinitrin, Glonoin).—$C_3H_5(NO_3)_3$.

ACTION AND USES: Vasodilator, acting more slowly than amyl nitrite.

Glyceryl Trinitrate Spirit, Spiritus Glycerylis Tinitratis, N. F. (Solutio nitroglycerini spirituosa, P. I., Nitroglycerin Spirit).—Glyceryl trinitrate (1 per cent) in alcohol. *Caution: Great care must be exercised in dispensing, handling, packing, transporting and storing this spirit, since a dangerous explosion may result if any considerable quantity of it is spilled and the alcohol wholly or partially lost by evaporation. If, through accident it is spilled, a solution of potassium or sodium hydroxide must be poured over it at once to decompose the glyceryl trinitrate. (U. S. P.)*

DOSAGE: 0.06 cc. (N. F.) dropped on the tongue or taken after diluting with water.

Glyceryl Trinitrate Tablets, Tabellae Glycerylis Trinitratis, U. S. P. (Nitroglycerin Tablets, Trinitrin Tablets).—The usual sizes contain 0.3 mg., 0.4 mg., 0.6 mg. and 1.2 mg.

DOSAGE: 0.4 mg. glyceryl trinitrate (U. S. P.).

Glycyrrhiza, Glycyrrhiza, U. S. P. (Licorice Root).—Dried rhizone and roots.

ACTION AND USES: Used to disguise the taste of drugs and as demulcent expectorant. The preparations are incompatible with acids.

DOSAGE: 2 Gm. (U. S. P.).

Glycyrrhiza Extract, Extractum Glycyrrhizae, U. S. P. (Licorice Root Extract, Licorice).—The commercial extract of glycyrrhiza. Incompletely soluble in water.

Pure Glycyrrhiza Extract, Extractum Glycyrrhizae Purum, U. S. P. (Pure Licorice Root Extract).—A pilular extract.

Glycyrrhiza Fluidextract, Fluidextractum Glycyrrhizae, U. S. P. (Licorice Root Fluidextract).—Glycyrrhiza (100 per cent). Alcoholic content about 22 per cent.

DOSAGE: 2 cc. (U. S. P.).

Glycyrrhiza Syrup, Syrupus Glycyrrhizae, U. S. P. (Licorice Syrup).—Glycyrrhiza fluidextract (25 per cent) in fennel oil, anise oil and syrup. Alcoholic content from 5 to 6 per cent.

DOSAGE: 8 cc. (U. S. P.).

Gold and Sodium Thiosulfate, Auri et Sodii Thiosulfas, N. F.—$Na_3Au(S_2O_3)_2.2H_2O$.—Contains about 37.2 per cent gold.

White, needle-like or prismatic small, glistening crystals, which slowly darken on exposure to light. Soluble in water (1 in 2); insoluble in alcohol or most other organic solvents.

ACTION AND USES: Used for injection in the treatment of non-disseminated lupus erythematosus and in active rheumatoid arthritis. It should be used with extreme caution to avoid severe and sometimes fatal reactions.

DOSAGE: To be determined by the prescriber, (N. F.). The preferred initial dose is 15 mg. intravenously or intramuscularly, given in from 2 to 5 cc. of sterile distilled water. Subsequent doses given at weekly intervals are increased 5 mg. per dose, not to exceed a maximum of 50 mg. for women and 75 mg. for men, provided no reactions have occurred. It should be discontinued permanently after any severe reaction; milder reactions call for reduction of the dose or temporary discontinuance of the drug.

Grindelia, Grindelia, N. F. (Grindelia Robusta).—Dried leaves and flowering tops.

ACTION AND USES: Formerly used in spasmodic asthma, whooping cough, bronchitis and hay fever and locally against ivy poisoning but apparently of little value.

DOSAGE: 2 Gm. (N. F.).

Grindelia Fluidextract, Fluidextractum Grindeliae, N. F.—Grindelia (100 per cent). Alcoholic content about 60 per cent.

DOSAGE: 2 cc. (N. F.).

Guaiac, Guaiacum, N. F. (Guaiac Resin).

ACTION AND USES: Formerly used in syphilis, chronic rheumatism and gout, and as throat lozenges for its mildly irritant action. It produces no definite systemic effects, except that it is mildly laxative and possibly diuretic. Its value is extremely doubtful.

DOSAGE: 1 Gm. (N. F.).

Ammoniated Guaiac Tincture, Tinctura Guaiaci Ammoniata, N. F.—Guaiac (20 per cent) in aromatic ammonia spirit. Alcoholic content about 61 per cent.

DOSAGE: 2 cc. (N. F.).

Guaiacol, Guaiacol, N. F.—$C_6H_4.OH.OCH_3$. Obtained from wood creosote or prepared synthetically.

Colorless or yellow solid or liquid with an aromatic odor. Sparingly soluble in water (about 1 in 65), freely soluble in glycerin (1 in 1) and miscible with alcohol.

ACTION AND USES: Used as intestinal antiseptic and bronchial stimulant, but it is ineffective; less irritant, and even less active than creosote.

DOSAGE: 0.5 cc. (N. F.).

Surgical Gut, Chorda Chirurgicalis, U. S. P. (Surgical "Catgut," "Catgut" Suture).—Surgical Gut consists of sterilized gut prepared from the longitudinally-split segment of submucous connective tissue of the small intestine of healthy sheep, Ovis aries Linné (Fam. Bovidae). Surgical gut may consist of plain gut which has not been treated in any manner which will alter its normal rate of digestibility, known as type A, plain or untreated, or it may consist of gut which has been tanned or otherwise treated so that it will resist digestion for longer but varying periods of time, and known respectively as type B, mild treatment; type C, medium treatment, and type D, prolonged treatment. One form of treatment is frequently referred to as chromic. The above types are supplied as boilable or as nonboilable surgical gut.

Surgical gut is uniformly and firmly twisted. Each strand of gut shall measure to within 10 per cent of the length stated on the label. The minimum tensile strength and the maximum and minimum diameters for each size from 0000000 to 7 are described in the U. S. P. monograph.

Caution: The tubes of Surgical Gut marked "Non-boilable" must not be subjected to heat. Tubes marked "Boilable" may be heated for purposes of sterilizing the outside of the tube.

Halazone, Halazonum, N. F.—$C_7H_5Cl_2NO_4S$.—Contains the equivalent of about 26 per cent active chlorine.

A white, crystalline powder having a chlorine-like odor. It melts at about 195 C. and is affected by light. It dissolves in glacial acetic acid and in solutions of alkali hydroxides and alkali carbonates; slightly soluble in water and in chloroform.

ACTION AND USES: A chlorine derivative for the disinfection of drinking water; active in the presence of alkali carbonate, borate or

phosphate in concentrations of from 1: 500,000 to 1: 200,000 (2 to 5 parts per million) in from thirty to sixty minutes against most bacteria responsible for intestinal infection.

Halazone Tablets, Tabellae Halazoni, N. F.—Contain not less than 90 per cent and not more than 135 per cent of the labeled amount of halazone.

DOSAGE: 4 to 8 mg. halazone per liter; usually available in tablets containing 4 mg. of the compound with sodium carbonate (or borate) and sodium chloride.

Halibut Liver Oil, Oleum Hippoglossi, U. S. P.—Contains in each 1 Gm. not less than 60,000 U. S. P. units of vitamin A and not less than 600 U. S. P. units of vitamin D. Halibut liver oil may be flavored by the addition of flavoring substances recognized in the U. S. P.

Yellow to brownish yellow, oily liquid with a characteristic, slightly fishy but not a rancid odor and a fishy taste. Insoluble in water and slightly soluble in alcohol but freely soluble in ether, in chloroform, in carbon disulfide and in ethyl acetate.

ACTION AND USES: Like cod liver oil it is used as a source of vitamin A for infants and children.

DOSAGE: Prophylactic, infants and adults, 0.1 cc. (U. S. P.).

Halibut Liver Oil Capsules, Capsulae Olei Hippoglossi, U. S. P.—Halibut liver oil capsules shall be labeled to contain either 5,000 or 25,000 U. S. P. units of vitamin A per capsule.

DOSAGE: One capsule containing 5,000 U. S. P. vitamin A units.

Hamamelis Leaf, Hamamelidis Folium, N. F. (Witch-hazel Leaves).

ACTION AND USES: Astringent, without advantage over other tannin-bearing drugs.

DOSAGE: 2 Gm. (N. F.).

Hamamelis Leaf Fluidextract, Fluidextractum Hamamelidis Folii, N. F. (Witch-hazel Leaves Fluidextract).—Hamamelis leaves (100 per cent). Alcoholic content about 74 per cent.

DOSAGE: 2 cc. (N. F.).

Hamamelis, Hamamelis (Witch Hazel).

Hamamelis Water Aqua Hamamelidis, N. F. (Witch-hazel Water, Distilled Witch-hazel Extract).—Witch-hazel twigs distilled with water and preserved with about 14.5 per cent alcohol.

It is clear and colorless, having a characteristic odor and taste. It is free from mucoid or fungous growths and does not have an acetous odor.

USES: Employed externally, for contusions. It owes its feeble activity mainly to the alcohol.

Helium, Helium, U. S. P.—Contains not less than 95 per cent by volume of helium, the remainder consisting mainly of nitrogen.

A colorless, odorless, tasteless inert gas. Very slightly soluble in water, it is neither combustible nor will it support combustion.

ACTION AND USES: Its mixture with oxygen in the same ratio as nitrogen-oxygen of the atmosphere is used as a less dense substitute for air that must be breathed under high atmospheric pressure. Helium-oxygen mixtures, because of the decreased effort required to breathe them, have been suggested to relieve various types of dyspnea and to overcome respiratory difficulty during inhalation anesthesia. The use of helium as an inert component gas of anesthetic-oxygen mixtures is limited to the extent by which it displaces oxygen required to meet physiologic needs. It is useful with cyclopropane mixtures to reduce inflammability.

Hexavitamins, Hexavitaminarum.

Hexavitamin Capsules, Capsulae Hexavitaminarum, U. S. P.—Each capsule contains not less than 5,000 U. S. P. units of vitamin A from natural (animal) sources, 400 U. S. P. units of vitamin D from natural (animal) sources or as activated ergosterol or activated 7-dehydrocholesterol, 75 mg. ascorbic acid, 2 mg. thiamine hydrochloride, 3 mg. riboflavin and 20 mg. nicotinamide.

ACTION AND USES: Used mainly as a prophylactic supplement to vitamin-deficient diets, to supply the proportionate recommended daily allowances of its six constituent vitamins. It is not suitable for treatment of severe specific deficiencies.

DOSAGE: To be determined by the physician in accordance with the needs of the patient (U. S. P.). Each capsule supplies an approximately adequate daily allowance of the six vitamins for adult men.

Hexavitamin Tablets, Tabellae Hexavitaminarum, U. S. P.—Each tablet contains not less than 5,000 U. S. P. units of vitamin A from natural (animal) sources, 400 U. S. P. units of vitamin D from natural (animal) sources or as activated ergosterol or activated 7-dehydrocholesterol, 75 mg. ascorbic acid, 2 mg. thiamine hydrochloride, 3 mg. riboflavin and 20 mg. nicotinamide.

ACTION AND USES: As for hexavitamin capsules.

DOSAGE: As for hexavitamin capsules.

Hexylresorcinol, Hexylresorcinol, U. S. P.

White or yellowish white needle-shaped crystals with a faint, fatty odor and a sharp, astringent taste. It prdouces a sensation of numbness when placed on the tongue and acquires a brownish pink tint on exposure to light and air. Soluble in water (1 in 2,000). Freely soluble in alcohol, in glycerin, and in vegetable oils.

ACTION AND USES: Used as topical antiseptic, urinary antiseptic and anthelmintic.

DOSAGE: Anthelmintic, 1 Gm. (U. S. P.).

Hexylresorcinol Pills, Pilulae Hexylresorcinolis, U. S. P.—Contain about 100 per cent of the labeled amount of the crystalline drug covered with a tough gelatin coating.

DOSAGE: Anthelmintic, 1 Gm. hexylresorcinol (U. S. P.), usually available in pills containing 0.1 and 0.2 Gm.

Histamine Phosphate, Histaminae Phosphas, U. S. P. (Histamine Acid Phosphate).

Colorless, long, odorless crystals. Freely soluble in water (1 in 4).

ACTION AND USES: Used for testing the ability of the stomach to secrete hydrochloric acid. It has also been proposed for the relief of pain in myositis, neuritis and chronic rheumatic arthritis, but its value in these conditions remains to be determined. The effects on blood pressure are variable. Sometimes causes transient flushing, headache, dizziness and sweating. May precipitate an attack in one who is subject to asthma; extreme caution necessary in use for the aged and those who suffer from arteriosclerosis.

DOSAGE: 0.3 mg., intramuscular (U. S. P.).

Histamine Phosphate Injection, Injectio Histaminae Phosphatis, U. S. P. (Histamine Phosphate Solution, Histamine Acid Phosphate Injection).—Contains histamine phosphate 0.1 per cent in water for injection. The usual ampul size contains 1 mg. in 1 cc.

Colorless or nearly colorless, slightly acid liquid.

DOSAGE: Intramuscular, 0.3 mg. histamine phosphate (U. S. P.).

Histidine Monohydrochloride, Histidinae Monohydrochloridum, N. F.—$C_6H_9N_3O_2.HCl.H_2O$.—Contains about 21.85 per cent nitrogen, equivalent to about 98 per cent histidine monohydrochloride.

Small, glistening, colorless crystals, nearly odorless and saline in taste. Aqueous solutions are acid to litmus. Soluble in water (1 in 8) and in alcohol; insoluble in ether and chloroform.

ACTION AND USES: A soluble salt of one of the aminoacids that has been used without convincing results in the treatment of peptic ulcer.

DOSAGE: 0.2 Gm. (N. F.), usually administered in 4 per cent sterile solution by intramuscular injection.

Homatropine Hydrobromide, Homatropinae Hydrobromidum, U. S. P.

White, odorless powder. Freely soluble in water (1 in 6) and sparingly soluble in alcohol (1 in 40). *Caution: Homatropine hydrobromide is extremely poisonous.* (U. S. P.).

ACTION AND USES: Used as mydriatic and cycloplegic. Its effects resemble those of atropine but disappear in shorter time.

DOSAGE: 0.5 mg., orally. May be used in 2 per cent aqueous solution, or a drop of a 1 in 500 solution may be introduced into the conjunctival sac every five minutes until five drops have been applied. The maximum dilatation occurs in about three quarters of an hour.

Homatropine Methylbromide, Homatropinae Methylbromidum, N. F.—$C_{17}H_{24}O_3NBr$.—Contains about 3.77 per cent nitrogen and about 21.6 per cent bromine when dried at 100 C.

Odorless, white crystalline powder having a bitter taste. It dissolves in water and in alcohol, is insoluble in ether and is affected by light.

ACTION AND USES: Used for the control of gastrointestinal spasm and hyperchlorhydria. It is less toxic but also less active than atropine compounds.

DOSAGE: 2.5 mg. (N. F.), orally, usually available in tablet form.

Homatropine Methylbromide Tablets, Tabellae Homatropinae Methylbromidi, N. F.

DOSAGE: 2.5 mg. homatropine methylbromide (N. F.), usually available in tablets, each of which contain that amount of the drug. For adults, 1 to 2 tablets three times daily before meals; for children and infants, according to age.

Honey, Mel, U. S. P. (Clarified Honey, Strained Honey). USE: A flavoring vehicle.

Hydrastine Hydrochloride, Hydrastinae Hydrochloridum, N. F. (Hydrastine Chloride).

White, odorless, bitter powder. Very soluble in water and in alcohol.

ACTION AND USES: Used in the treatment of urethral and vesical catarrh and as a systemic hemostatic, especially in excessive menstruation. Its efficacy is doubtful.

DOSAGE: 10 mg. (N. F.).

Hydrastis, Hydrastis, N. F. (Goldenseal, Hydrastidis rhizoma, P. I.).—Rhizome and roots, yielding not less than 2.5 per cent of anhydrous ether-soluble alkaloids.

ACTION AND USES: Hydrastis is a bitter, without advantage over other simple bitters (gentian).

DOSAGE. 2 Gm. (N. F.).

Hydrastis Extract, Extractum Hydrastis, N. F. (Extract of Goldenseal, Powdered Hydrastis Extract).—About 10 per cent ether-soluble alkaloids of hydrastis.

DOSAGE: 0.05 Gm. (N. F.).

Hydrastis Fluidextract, Fluidextractum Hydrastis, N. F. (Goldenseal Fluidextract, Extractum Hydrastidis fluidum, P. I.).—Hydrastis (100 per cent), yielding about 2.5 per cent ether-soluble alkaloids. Alcoholic content about 54 per cent.

DOSAGE: 2 cc. (N. F.).

Hydrastis Tincture, Tinctura Hydrastis, N. F. (Goldenseal Tincture, Tinctura Hydrastidis, P. I.).—Hydrastis (20 per cent) yielding about 0.5 per cent alkaloids in alcohol and water. Alcohol content about 60 per cent.

DOSAGE: 8 cc. (N. F.).

Diluted Hydriodic Acid, Acidum Hydriodicum Dilutum, U. S. P.—HI about 10 per cent and HPH_2O_2 about 0.8 per cent.

A colorless or not more than pale yellow, odorless liquid.

ACTION AND USES: Has the general properties of iodides.

Caution: Diluted hydriodic acid must not be dispensed or used in the preparation of other products if it contains free iodine (U. S. P.).

DOSAGE: 1 cc., diluted. Administered chiefly in the form of syrup as a substitute for the alkali iodides, over which it has no material advantage.

Hydriodic Acid Syrup, Syrupus Acidi Hydriodici, U. S. P.—Diluted hydriodic acid 14 per cent.

DOSAGE: 4 cc. (U. S. P.).

Hydrochloric Acid, Acidum Hydrochloricum, U. S. P.—HCl about 36 per cent.

A fuming, corrosive liquid, having a pungent odor. Incompatible with alkalies and their carbonates and with salts of silver and of lead.

ACTION AND USES: Used as caustic and antiseptic.

Diluted Hydrochloric Acid, Acidum Hydrochloricum Dilutum, U. S. P.—HCl about 10 per cent.

A colorless, odorless, strongly acid solution.

ACTION AND USES: Used in gastric anacidity, well diluted.

DOSAGE: 4 cc. (U. S. P.) of diluted hydrochloric acid after meals, diluted in ½ to 1 glass of water taken through a glass tube to protect the teeth.

Hydrogen Peroxide, Hydrogenii Peroxidum (Hydrogen Dioxide).

Hydrogen Peroxide Solution, Liquor Hydrogenii Peroxidi, U. S. P. (Hydrogen Dioxide Solution).—H_2O_2 (about 3 per cent).

ACTION AND USES: Nontoxic and fairly efficient local antiseptic and detergent. Used on suppurating wounds and as a mouthwash and gargle; also as a bleaching agent. Should not be injected into a wound unless free drainage is present.

DOSAGE: 4 cc. For external application should be diluted about 1 in 4.

Hydroxystearin Sulfate, Hydroxystearini Sulfas, N. F. (Sulfated Hydrogenated Castor Oil).—A substance prepared by sulfating partially hydrogenated castor oil, containing about 9 per cent of organically combined sulfur trioxide.

ACTION AND USES: A pharmaceutic aid used in the preparation of water-soluble ointments to impart adhesive properties with or without the addition of wax. It is also useful to overcome the incompatibilities of Peru balsam and coal tar with petrolatum and lard. It may be irritant to the skin, so emulsions of which it is a part should be tested for possible sensitization before use.

Hyoscyamus, Hyoscyamus, U. S. P. (Henbane, Hyoscyami folium, P. I.).—Dried leaves with or without tops, yielding not less than 0.04 per cent of alkaloids.

ACTION AND USES: Similar to those of belladonna, but it is less active.

DOSAGE: 0.2 Gm. (U. S. P.).

Hyoscyamus Extract, Extractum Hyoscyami, N. F. (Henbane Extract, Extractum Hyoscyami, P. I.).—Yields about 0.15 per cent of alkaloids. The powder and pilular forms are both official.

DOSAGE: 50 mg. (N. F.).

Hyoscyamus Fluidextract, Fluidextractum Hyoscyami, N. F. (Henbane Fluidextract).—Yields 0.035 to 0.045 per cent of the alkaloids of hyoscyamus. Alcoholic content about 60 per cent.

DOSAGE: 0.2 cc. (N. F.).

Hyoscyamus Tincture, Tinctura Hyoscyami, U. S. P. (Henbane Tincture, Tinctura Hyoscyami, P. I.).—Hyoscyamus (10 per cent), yielding about 0.004 per cent of hyoscyamus alkaloids; in diluted alcohol. Alcoholic content about 67 per cent.

DOSAGE: 2 cc. (U. S. P.).

Hypophosphorous Acid, Acidum Hypophosphorosum, U. S. P.—HPH_2O_2 (about 31 per cent).

A colorless or slightly yellow, odorless liquid.

ACTION AND USES: Ingredient of compound hypophosphite preparations.

DOSAGE: 0.2 cc.

Ichthammol, Ichthammol, N. F. (Ammonium Ichthosulfonate).—Yields not less than 2.5 per cent ammonia, not more than 8 per cent ammonium sulfate and not less than 10 per cent total sulfur.

A reddish brown or brownish black, viscous fluid with a characteristic odor. Soluble in water and in glycerin, miscible with fixed oils and fats and partly soluble in alcohol.

ACTION AND USES: Mildly antiseptic demulcent on mucous membranes; it resembles Ichthyol. There are no indications for its internal use.

DOSAGE: 0.2 Gm. (N. F.).

Ichthammol Ointment, Unguentum Ichthammolis, N. F. Ichthammol (10 per cent) in petrolatum and wool fat.

Insulin, Insulin

Insulin Injection, Injectio Insulini, U. S. P. (Insulin, Insulin Hydrochloride).—An acidified aqueous solution of the active principle of the pancreas which affects the metabolism of glucose. The potency shall be expressed in U. S. P. insulin units which are equivalent in potency to the unit declared on the label of the container of the U. S. P. Zinc-Insulin Crystals Reference Standard.

Insulin injection is so standardized that each 1 cc. contains either 20, 40, 80 or 100 U. S. P. insulin units.

Colorless or almost colorless liquid, free from turbidity and from insoluble matter. The solution must contain from 0.1 to 0.25 per cent of either phenol or cresol and about 1.6 per cent of glycerin. Its *p*H is between 2.5 and 3.5. It should be preserved in a refrigerator.

ACTIONS AND USES: Used in the treatment of diabetes mellitus.

DOSAGE: Administered by injection usually into the loose subcutaneous tissue. At times it is administered intravenously. The dose of insulin is to be determined by the physician in accordance with the needs of the patient.

Protamine Zinc-Insulin Injection, Injectio Zinco-Insulini Protaminati, U. S. P.—A suspension, in a buffered water medium, of insulin modified by the addition of zinc chloride and protamine.

Note: Protamine zinc insulin injection differs in its action from that of insulin injection, both in time of onset and duration. To secure accuracy of dosage the preparation must be brought into uniform suspension by careful shaking before use.

ACTION AND USES: Used chiefly for its more prolonged action in those cases of diabetes mellitus where unmodified insulin does not provide adequate control.

DOSAGE: Protamine zinc-insulin injection is administered by injection usually into the loose subcutaneous tissue. It is never administered intravenously. The dose is to be determined by the physician in accordance with the needs of the patient (U. S. P.). One dose daily, given either before breakfast, before supper or before retiring, is usually sufficient.

Iodine, Iodum, U. S. P.

Heavy, grayish black, brittle plates with a metallic luster and a distinctive odor. Very slightly soluble in water (1 in 2,950) and soluble in alcohol (1 in 13). Freely soluble in solutions of alkali iodides.

ACTION AND USES: The tinctures and aqueous solution are used externally as local irritants and antiseptics. The

irritant action can be graduated by successive application. It is used internally in the form of Lugol's solution in certain cases of exophthalmic goiter.

DOSAGE: 0.01 Gm. Never given as such.

Iodine Ampuls, Ampullae Iodi, N. F. (Iodine Swabs).—Contain a sterile solution of iodine (about 2 per cent) and sodium iodide (2.25 per cent) in about 47 per cent alcohol.

USES: These ampuls are convenient for the application of iodine solution to the skin with cotton swabs.

Iodine and Zinc Iodide Glycerite, Glyceritum Iodi et Zinci Iodidi, N. F. (Diluted Talbot's Solution).—Zinc iodide (8 per cent), iodine (10 per cent), glycerin and water.

Iodine Ointment, Unguentum Iodi, U. S. P.—Iodine (4 per cent) and potassium iodide (4 per cent) in glycerin and yellow ointment. *Caution: During its manufacture and storage this ointment must not come in contact with metallic utensils or containers. (U. S. P.)*

Stainless Iodized Ointment, Unguentum Iodatum Denigrescens, N. F.—Contains iodine (5 per cent) in a mixture of paraffin (5 per cent), oleic acid (20 per cent) and petrolatum (70 per cent).

ACTIONS AND USES: The iodine is bound and the ointment has no therapeutic value.

Iodine Solution, Liquor Iodi, N. F. (Solution of Iodine, U. S. P. XII).—Contains 2 per cent iodine and 2.4 per cent sodium iodide in distilled water.

ACTION AND USES: Mild aqueous iodine antiseptic suitable for external application to minor open wounds without dilution.

Phenolated Iodine Solution, Liquor Iodi Phenalotus, N. F. (Carbolized Iodine Solution, Boulton's Solution, French Mixture).—Strong iodine solution (1.5 per cent), liquefied phenol (0.6 per cent), glycerin and water. The iodine combines with the phenol.

USES: For external use: undiluted (N. F.). Antiseptic.

Strong Iodine Solution, Liquor Iodi Fortis, U. S. P. (Lugol's Solution).—Contains 5 per cent iodine and 10 per cent potassium iodide in distilled water.

ACTION AND USES: For internal administration when iodides are indicated.

DOSAGE: 0.3 cc. (U. S. P.), orally in water.

Iodine Tincture, Tinctura Iodi, U. S. P. (Mild Tincture of Iodine, U. S. P. XII).

Note: This should not be confused with the 7 per cent tincture of iodine U. S. P. XII now described as Strong Iodine Tincture N. F.

Contains 2 per cent iodine and 2.4 per cent sodium iodide in diluted alcohol.

ACTION AND USES: Same as Iodine Solution, N. F., except that the alcohol vehicle may be too irritant for open wounds or mucous membranes.

Iodides Tincture, Tinctura Iodidorum, N. F.—A solution of potassium iodide and ammonium iodide (and perhaps other compounds of iodine) obtained by mixing iodine (5 per cent), potassium iodide (2.5 per cent), strong ammonia solution (10 per cent), water and alcohol. Alcoholic content about 45 per cent. Does not contain free iodine.

USES: For external use: undiluted (N. F.). Of doubtful utility.

Strong Iodine Tincture, Tinctura Iodi Fortis, N. F. (Tincture of Iodine, U. S. P. XII).

Note: Dispense strong iodine tincture when tincture of iodine U. S. P. XII is ordered.

Contains 7 per cent iodine and 5 per cent potassium iodine in distilled water and alcohol. Alcoholic content about 87 per cent.

ACTION AND USES: External irritant and antiseptic to be diluted to half strength to avoid burns of the skin.

Iodized Oil, Oleum Iodatum, U. S. P.—Contains organically combined iodine (about 40 per cent).

ACTION AND USES: Used as contrast medium. When swallowed it has the systemic effects of inorganic iodides.

Iodochlorohydroxyquinoline, Iodochlorohydroxyquinolinum, N. F. (5-Chloro-7-iodo-8-hydroxy-quinoline, Vioform).—C_9H_5NOClI.—Contains about 39.7 per cent Iodine and about 11.8 per cent chlorine.

A voluminous, spongy, brownish yellow powder with a slight, characteristic odor. It melts with decomposition at about 172 C. and is affected by light. Insoluble in water and in alcohol; it dissolves in hot ethyl acetate and in hot glacial acetic acid.

ACTION AND USES: An odorless substitute for iodoform used externally as a dusting powder or for insufflation (25 per cent) and in the form of ointment, lotion or paste (2 or 3 per cent) for application to superficial lesions; but its chief use is as a protozoacide in the local treatment of trichomonae vaginitis and internally, in tablet form, for the treatment of amebiasis. Iodism may occur from its prolonged use.

DOSAGE: 0.25 Gm. (N. F.), orally.

Iodochlorohydroxyquinoline Tablets, Tabellae Iodochlorohydroxyquinolini, N. F.

ACTION AND USES: Internally against amebiasis.

DOSAGE: 0.25 Gm. iodochlorohydroxyquinoline (N. F.), available in tablets of that amount. From 0.75 to 1.0 Gm. is given daily in divided doses for a period of ten days followed by a rest period of one week.

Iodoform, Iodoformum, N. F.—(Triiodomethane) CHI_3.

Greenish yellow powder or lustrous crystals with a peculiar penetrating odor and an unpleasant, slightly sweetish taste suggestive of iodine. Practically insoluble in water, to which, however, it imparts

its odor and taste; soluble in alcohol (1 in 60) and in glycerin (1 in 80).

ACTION AND USES: Used as dusting powder, promoting healing by granulation. Oily suspensions are used in treatment of tuberculous fitulas.

Iodophthalein Sodium, Iodophthaleinum Sodicum, U. S. P. (Tetraiodophenolphthalein Sodium, Tetraiodophthalein Sodium, Tetiothalein Sodium, Solubile Iodophthaleinum). —Contains not less than 85 per cent tetraiodophenolphthalein—the tetraiodophenolphthalein contains about 61.5 per cent iodine.

A pale blue violet, odorless powder, having a saline, astringent taste. Gradually decomposes on exposure to air with the liberation of free phthalein. Freely soluble in water (1 in 7) and slightly soluble in alcohol.

ACTION AND USES: Used for roentgenologic examination of the gallbladder.

DOSAGE: For each 10 kilograms of body weight: Oral, 0.5 Gm.; intravenous, 0.3 Gm. (U. S. P.).

Iodopyracet Injection, Injectio Iodopyracetum, U. S. P. (Diodrast).—A solution of the diethanolamine salt of 3,5-di-iodo-4-pyridone-N-acetic acid containing in each 100 cc. about 35 Gm. of the salt. The separated 3,5-di-iodo-4-pyridone-N-acetic acid contains about 62.5 per cent iodine when dried at 100 C.

A clear and nearly colorless liquid, which is neutral to litmus paper.

ACTION AND USES: Used as a contrast medium in intravenous urography for diagnosis. Roentgenograms are taken at 5, 15 and 45 minutes after intravenous injection.

DOSAGE: 20 cc. containing about 7 Gm. (35 per cent) of the drug in aqueous solution is injected intravenously for adults; for children, correspondingly smaller doses. Subcutaneous injection by dilution with four parts of isotonic sodium chloride solution or intramuscular injection by distributing the dose between two sites may be used when veins are inaccessible.

Ipecac, Ipecacuanha, U. S. P. (Ipecacuanhae radix, P. I.). —Rhizome and root, yielding not less than 2 per cent of ether-soluble alkaloids.

ACTION AND USES: Used as nauseant expectorant and emetic. Also formerly against amebic dysentery but in this use has been displaced by emetine hydrochloride, chiniofon and other amebacides.

DOSAGE: Emetic, 0.5 Gm. (U. S. P.).

Ipecac Fluidextract, Fluidextractum Ipecacuanhae, U. S. P.—Ipecac (100 per cent), yielding about 2 per cent ether-soluble alkaloids. Alcoholic content about 30 per cent.
DOSAGE: Emetic, 0.5 cc. (U. S. P.).

Ipecac Syrup, Syrupus Ipecacuanhae, U. S. P.—Ipecac fluidextract (7 per cent) in glycerin and syrup.
DOSAGE: Emetic, 8 cc. (U. S. P.).

Ipecac Tincture, Tinctura Ipecacuanhae, N. F. (Tinctura Ipecacuanhae, P. I.).—Ipecac fluidextract (10 per cent, yielding about 0.2 per cent ipecac alkaloids) and diluted hydrochloric acid in alcohol and water. Alcoholic content about 21 per cent.
DOSAGE: 0.6 cc. (N. F.).

Ipomea, Ipomoea, N. F. (Orizaba Jalap, Mexican Scammony.)—Dried root. Yields not less than 15 per cent resins.
ACTION AND USES: It is an active purgative producing copious watery stools. Formerly used to remove water from the tissue in the treatment of dropsy; usually administered in the form of the resin.
DOSAGE: 1 Gm. (N. F.).

Ipomea Resin, Resina Ipomoeae, N. F. (Mexican Scammony Resin). Brown, translucent masses of fragments that break with a resinous fracture. It has a characteristic odor and acrid taste. Soluble in alcohol.
DOSAGE: 0.2 Gm. (N. F.).

Iron, Ferrum, N. F.—Elementary iron, Fe, in the form of fine, bright, filings or powder.
USES: For making the salts.

Iron and Ammonium Acetate, Ferrum et Ammonii Acetas.
Iron and Ammonium Acetate Solution, Liquor Ferri et Ammonii Acetatis, N. F. (Basham's Mixture). Alcoholic content about 5 per cent.
USES: An antiquated preparation without the special advantages ascribed to it. Iron and acetates are better prescribed separately.
DOSAGE: 15 cc. (N. F.).

Peptonized Iron, Ferrum Peptonatum, N. F. (Iron Peptonate).—A compound of iron oxide and peptone, rendered soluble by sodium citrate; contains about 17 per cent iron.
USES: Nonastringent inorganic iron preparation.
DOSAGE: 0.3 Gm. (N. F.).

Peptonized Iron and Manganese Solution, Liquor Ferri Peptonati et Mangani, N. F. (Solution of Iron Peptonate and Manganese).—Peptonized iron (1.75 per cent), equivalent to 0.3 per cent iron, with soluble manganese citrate (0.875 per cent) flavored with orange oil, ethyl acetate and vanillin in alcohol, syrup, glycerin and distilled water. Alcoholic content about 14 per cent.
USES: An irrational combination of iron and manganese without advantage over the solution of peptonized iron.
DOSAGE: 8 cc. (N. F.).

Reduced Iron, Ferrum Reductum, N. F. (Iron by Hydrogen).—Metallic iron, Fe (not less than 90 per cent), obtained by reduction of iron oxide by hydrogen.
Very fine, grayish black lusteress, odorless and tasteless powder. Insoluble in water or alcohol.

ACTION AND USES: Hematinic, with the advantage of small bulk to supply effective amounts of metallic iron. Supplies approximately 90 per cent iron so that only about 1.12 Gm. are required to provide a total daily amount of 1 Gm. metallic iron.

Reduced Iron Capsules, Capsulae Ferri Reducti, N. F.

DOSAGE: 0.5 Gm. reduced iron (N. F.), usually available in capsules containing 0.3, 0.5 and 0.65 Gm. Two to four such doses provide a daily amount of 1 Gm. metallic iron.

Jalap, Jalapa, N. F. (Jalap Root).—A root, yielding not less than 9 per cent resins.

ACTION AND USES: Drastic hydragogue cathartic, formerly used in dropsies.

DOSAGE: 1 Gm. (N. F.).

Compound Jalap Powder, Pulvis Jalapae Compositus, N. F.—Jalap (35 per cent) and potassium bitartrate (65 per cent).

USES: Hydragogue cathartic.

DOSAGE: 2 Gm. (N. F.).

Jalap Resin, Resina Jalapae, N. F.—The resin from jalap.

DOSAGE: 0.125 Gm. (N. F.).

Juniper, Juniperus, N. F. (Juniper berries).—Dried ripe fruit.

ACTIONS AND USES: Irritant to urinary organs, owing to the volatile oil.

DOSAGE: 4 Gm. (N. F.).

Juniper Oil, Oleum Juniperi, U. S. P.—A volatile oil.

Freely soluble in alcohol (1 in 4).

ACTION AND USES: Irritant diuretic.

DOSAGE: 0.1 cc.; not administered as such.

Juniper Tar, Pix Juniperi, U. S. P. (Cade Oil, Oleum Juniperi Empyreumaticum).—An empyreumatic oil.

A dark brown, thick liquid, having a tarry odor and a warm, faintly aromatic, bitter taste. Slightly soluble in water and partially soluble in alcohol.

ACTION AND USES: Epidermal stimulant in chronic inflammatory skin diseases, acting like tar.

DOSAGE: 1 to 10 per cent ointment.

Kamala, Kamala, N. F. (Rottlera, Glandulae Rottlerae).—Not less than 66 per cent nonvolatile ether-soluble extractive.

ACTION AND USES: Purgative; used only as a teniafuge.

DOSAGE: 7.5 Gm. (N. F.).

Kaolin, Kaolinum, N. F.—Purified native hydrated aluminum silicate.

White or nearly white powder or lumps with an earthy taste. Insoluble in water.

ACTION AND USES: Used in a poultice, kaolin cataplasm, similar to proprietary preparations. Also as a skin protective against fecal drainage from intestinal fistulas. Internally as absorbent in diarrhea and dysentery.

Kaolin Cataplasm, Cataplasma Kaolini, N. F.—A mixture of kaolin and glycerin with boric acid aromatized with thymol, methyl salicylate and peppermint oil.

USES: Externally to allay inflammation.

Kino, Kino, N. F.—A dried plant juice.

Dark brown fragments or brick-red powder, odorless and having an astringent taste. Partly soluble in water.

ACTION AND USES: Formerly used as intestinal and pharyngeal astringent.

DOSAGE: 0.5 Gm. (N. F.).

Kino Tincture, Tinctura Kino, N. F.—Kino (20 per cent) in alcohol and glycerin. Alcoholic content about 73 per cent.

DOSAGE: 2 cc. (N. F.).

Kola, Kola, N. F. (Cola, Kolanuts).—The dried cotyledon.

ACTION AND USES: Possesses stimulant actions of its caffeine. Without advantage over coffee.

DOSAGE: 4 Gm. (N. F.).

Lactic Acid, Acidum Lacticum, U. S. P.—Equivalent to about 87 per cent lactic acid, $CH_3CHOH.COOH$.

A colorless or slightly yellow, nearly odorless, syrupy liquid with an acid taste. Miscible with water and alcohol.

ACTION AND USES: Cauterization of mucous membranes and ulcers.

Lactose, Lactosum, U. S. P. (Saccharum Lactis, Milk Sugar).—Obtained from cow's milk.

White, hard, odorless crystalline masses or powder, with a faintly sweet taste. Freely soluble in water (1 in 5) and very slightly soluble in alcohol.

ACTION AND USES: Less sweet than cane sugar and less liable to ferment; slightly laxative and diuretic; used to modify cow's milk in the feeding of infants and invalids.

Lanatoside C, Lanatosidum C, U. S. P.—$C_{49}H_{76}O_{20}$.—A glycoside obtained from the leaves of Digitalis lanata Ehrh. The potency of lanatoside C, assayed biologically, corresponds to the potency of an equal weight of U. S. P. Lanatoside C Reference Standard.

Caution: Lanatoside C is extremely poisonous.

Colorless or white crystals or as a white crystalline powder. It is odorless and melts indistinctly with decomposition at about 250 C. Soluble in pyridine and in dioxane, practically insoluble in ether and in petroleum ether; soluble in water to the extent of 1 in 20,000; soluble in alcohol (1 in 45), in methanol (1 in 20) and slightly soluble in chloroform (1 in 2,000).

ACTION AND USES: Essentially identical with digoxin that represents the active residue of this lanatoside. It is likewise absorbed more completely on oral administration than the purpurea glycosides.

DOSAGE: Oral, 0.5 mg. Parenteral, to be determined by the physician according to the needs of the patient (U. S. P.).

Lanatoside C Injection, Injectio Lanatosidi C, U. S. P.—A sterile solution of lanatoside C in 70 per cent alcohol, to which glycerin may be added.

DOSAGE: To be determined by the physician according to the needs of the patient (U. S. P.). The total intravenous or intramusculardigitalization dose is about 1.6 mg., usually divided into two to four doses given at twelve hour intervals

Lanatoside C Tablets, Tabellae Lanatosidi C., U. S. P.

DOSAGE: Oral, 0.5 mg. of lanatoside C (U. S. P.).

Lard, Adeps, U. S. P.—The purified internal fat of the abdomen of the hog.

Insoluble in water, only slightly soluble in alcohol and readily soluble in ether and in chloroform.

ACTION AND USES: Base for ointments. Used particularly when absorption is desired but its absorptive action is open to question.

Benzoinated Lard, Adeps Benzoinatus, U. S. P.—Somewhat antiseptic and less liable to become rancid than ordinary lard.

Larkspur, Delphinium, N. F. (Larkspur Seed).

ACTION AND USES: Preparations are used externally to destroy pediculi of the hair and of the pubic region.

Larkspur Tinture, Tinctura Delphinii, N. F.—Larkspur (10 per cent) in alcohol. Alcoholic content about 90 per cent.

ACTION AND USES: For external use as a parasiticide: undiluted or diluted with an equal volume of water (N. F.).

Acetic Larkspur Tincture, Tinctura Delphinii Acetica, N. F.—Larkspur (10 per cent) with acetic acid, alcohol, glycerin and water. Alcoholic content 8 to 10 per cent.

ACTION AND USES: For external use as a parasiticide: undiluted (N. F.).

Lavender Oil, Oleum Lavandulae, U. S. P. (Lavender Flowers Oil).—A volatile oil.

Freely soluble in alcohol (1 in 4).

ACTION AND USES: Aromatic and flavoring agent.

DOSAGE: 0.1 cc.

Lavender Spirit, Spiritus Lavandulae, U. S. P.—Lavender oil (5 per cent) in alcohol. Alcoholic content about 90 per cent.

DOSAGE: 2 cc. (U. S. P.).

Compound Lavender Tincture, Tinctura Lavandulae Composita, U. S. P. (Compound Lavender Spirit).—Lavender oil, rosemary oil, cinnamon, clove, myristica and red saunders in alcohol and water. Alcoholic content about 70 per cent.

USES: Aromatic flavor and rubefacient.

DOSAGE: 2 cc.

Lead Acetate, Plumbi Acetas, U. S. P. (Sugar of Lead).—$Pb(CH_3COO)_2.3H_2O$.

Colorless, shining transparent crystals or heavy white crystalline masses, efflorescent, with a faint vinegar odor. Freely soluble in water (1 in 1.6) and soluble in alcohol (1 in 30).

ACTION AND USES: Externally, as astringent lotion. Should not be used internally owing to danger of lead poisoning.

Lead and Opium Lotion, Lotio Plumbi et Opii, N. F. (Lead and Opium Wash).—A mixture of lead acetate (1.8 per cent) and opium tincture (3.5 per cent) in distilled water.

USES: An irrational application, astringent and protective, but not a true anesthetic. The opium alkaloids are not absorbed to any appreciable extent through the unbroken skin.

Lead Monoxide, Plumbi Monoxidum, N. F. (Plumbi Oxidum, Litharge).—PbO.

Heavy yellowish or reddish yellow, odorless and tasteless powder or minute scales. Practically insoluble in water; insoluble in alcohol.

ACTION AND USES: Used to make pharmaceutic preparations.

Lead Oleate Ointment, Unguentum Plumbi Oleatis, N. F. (Unguentum Diachylon).—Lead oleate plaster (50 per cent), lavender oil and white petrolatum.

Oleate Plaster, Emplastrum Plumbi Oleatis, N. F. (Lead Plaster, Diachylon Plaster).—Lead Oleate obtained by heating a mixture of lead monoxide, olive oil, lard and water.

USES: Used in plaster masses and as a base for oleate ointment.

Lead Subacetate, Plumbi Subacetas.

ACTION AND USES: Astringent; used externally in the form of the following preparations:

Lead Subacetate Cerate, Ceratum Plumbi Subacetatis, N. F. (Goulard's Cerate).—A mixture of lead subacetate solution (20 per cent), camphor (2 per cent), wool fat, white wax and white petrolatum (N. F.).

Lead Subacetate Solution, Liquor Plumbi Subacetatis, N. F. (Goulard's Extract).—Contains lead subacetate corresponding to about 22 per cent lead.

USES: For external use, dilute with 4 volumes of freshly boiled distilled water. (N. F.).

Diluted Lead Subacetate Solution, Liquor Plumbi Subacetatis Dilutus, N. F. (Lead Water).—Lead subacetate solution (3.5 per cent) corresponding to about 0.75 per cent lead with distilled water.

USES: For external use, undiluted. (N. F.).

Lemon Oil, Oleum Limonis, U. S. P.—A volatile oil.

ACTION AND USES: Flavoring agent.

DOSAGE: 0.1 cc.

Note: Lemon oil which has a terebinthinate odor must not be used or dispensed. (U. S. P.)

Freely soluble in alcohol (1 in 3).

Lemon Peel, Limonis Cortex, U. S. P.

ACTION AND USES: Used for the preparation of lemon flavors.

Lemon Tincture, Tinctura Lemonis, U. S. P. (Lemon Peel Tincture).—Fresh lemon peel (50 per cent) treated with alcohol. Alcoholic content about 73 per cent.

Leptandra, Leptandra, N. F. (Culversroot).—Rhizome and roots.

ACTION AND USES: Unreliable cathartic; without advantage over podophyllum resin.

Leptandra Extract, Extractum Leptandrae, N. F. (Powdered Leptandra Extract, Culversroot Extract).—A hydroalcoholic extract diluted with starch. One Gm. represents 4 Gm. leptandra.

DOSAGE: 0.25 Gm. (N. F.).

Lime, Calx, N. F. (Calcium Oxide, Quicklime).—CaO.

Hard, white or grayish, odorless masses or granules or a white powder with a caustic taste with water to form calcium hydroxide, which is slightly soluble in water (1 in 840) and insoluble in alcohol.

ACTION AND USES: As milk of lime (a mixture of calcium hydroxide and water), it is used as a disinfectant of excreta.

Linseed, Linum, U. S. P. (Flaxseed).—The dried linseed contains not more than 2 per cent of other seeds or foreign organic matter and yields not less than 30 per cent of non-volatile, ether-soluble extractive containing not more than 2 per cent of unsaponifiable matter.

ACTION AND USES: Used in demulcent infusions, also when crushed or ground in poultices. If employed where the skin is broken the entire poultice should first be sterilized by boiling in order to avoid infection.

Linseed Oil, Oleum Lini, N. F. (Flaxseed Oil, Raw Linseed Oil).

Note: Linseed Oil that has been "boiled" or treated with a drier must not be used or dispensed. (N. F.)

ACTION AND USES: Externally, protective emollient, especially as Calcium Liniment (see under Calcium Hydroxide in burns. It is seldom used internally.

Lithium Benzoate, Lithii Benzoas, N. F.—$LiC_7H_5O_2$.

Odorless, white powder or crystalline scales, freely soluble in water (1 in 3) and soluble in alcohol (1 in 16).

ACTION AND USES: Mildly antiseptic but superfluous.

DOSAGE: 1 Gm. (N. F.).

Lithium Bromide, Lithii Bromidum, N. F.—LiBr (about 88 per cent).

White or pinkish white, granular, odorless, extremely deliquescent powder with a sharp, slightly bitter taste. Very soluble in water (1 in 0.6) and freely soluble in alcohol.

DOSAGE: 1 Gm. (N. F.).

Lithium Carbonate, Lithii Carbonas, N. F.—Li_2CO_3.

Light, white, odorless powder with an alkaline taste. Sparingly soluble in water (1 in 100); practically insoluble in alcohol.

ACTION AND USES: Used in the same way as sodium carbonate; without advantage over the latter. Lithium was formerly given to promote the elimination of urates but is useless for this purpose.

DOSAGE: 0.5 Gm. (N. F.).

Lithium Citrate, Lithii Citras, N. F.—$Li_3C_6H_5O_7$.

White, odorless powder or granules with a cooling, faintly alkaline taste. Freely soluble in water (1 in 1.4), very slightly soluble in alcohol.

ACTIONS AND USES: Used like citrates of sodium or potassium, over which it has no advantage.

DOSAGE: 0.5 Gm. (N. F.).

Lithium Salicylate, Lithii Salicylas, N. F.—$LiC_7H_5O_3$.

White or grayish white, odorless powder, with a sweet taste; deliquescent in moist air. Very soluble in water and alcohol.

ACTION AND USES: As a salicylate, inferior to sodium salicylate. Adequate doses would produce the toxic effects of lithium.

DOSAGE: 1 Gm. (N. F.).

Liver, Hepar.

The official Liver preparations belong to two quite distinct groups:

I. Liver preparations containing that soluble thermostable fraction of mammalian livers which increases the number of red corpuscles in the blood of persons suffering from pernicious anemia and used in the treatment of this disease.

Liver Extract, Extractum Hepatis, U. S. P. (Dry Liver Extract).

DOSAGE: One U. S. P. unit. (U. S. P.)

Liver Injection, Injectio Hepatis, U. S. P. (Liver Extract for Parenteral Use).

DOSAGE: Intramuscular, 1 U. S. P. unit daily. (U. S. P.)

Liver Solution, Liquor Hepatis, U. S. P. (Liquid Liver Extract). Alcoholic content about 19 per cent; glycerin, not more than 40 per cent.

DOSAGE: One U. S. P. unit. (U. S. P.)

II. Liver B-Vitamins Extracts, unfractionated extracts used to supply these vitamins and not intended for the treatment of pernicious anemia.

Liver with Stomach, Hepar cum Stomacho, U. S. P.

A brownish powder resulting from the mixture of a concentrated aqueous solution of mammalian liver with minced fresh hog stomach tissue. After admixture and incubation, the product is dried under reduced pressure and defatted. The approximate antianemic potency is expressed in U. S. P. units (oral).

ACTION AND USES: A combination of liver and stomach containing the intrinsic factor used in the oral treatment of pernicious anemia.

DOSAGE: 1 U. S. P. unit (U. S. P.), available in capsules containing 0.5 Gm. of the official powder, usually adjusted to such a potency that 12 capsules supply the equivalent of 1 U. S. P. oral unit.

Lobelia, Lobelia, N. F. (Indian-tobacco).—Dried leaves and tops.

ACTION AND USES: Expectorant, nauseant and emetic, resembling nicotine.

DOSAGE: 0.1 Gm. (N. F.)

Lobelia Fluidextract, Fluidextractum Lobeliae, N. F.—Lobelia (100 per cent). Alcoholic content about 39 per cent.

DOSAGE: 0.1 cc. (N. F.).

Lobelia Tincture, Tinctura Lobeliae, N. F. (Tinctura Lobeliae, P. I.).—Lobelia (10 per cent) in acetic acid and diluted alcohol. Alcoholic content about 46 per cent.

DOSAGE: 1 cc. (N. F.).

Lycopodium, Lycopodium, N. F.—The spores of club moss.

ACTION AND USES: Used as an inert dusting powder for the skin and as a diluent for insufflations of boric acid, tannin and so forth for the throat, nose and ear. The powder blown from an insufflator is very inflammable.

Magnesium Carbonate, Magnesii Carbonas, U. S. P.—

Hydrated magnesium carbonate, equivalent to about 41 per cent MgO.

Light, white, friable masses or bulky white powder, odorless and with a slight earthly taste. Practically insoluble in water; insoluble in alcohol.

ACTION AND USES: Used internally against gastric hyperacidity and as a mild laxative; externally as dusting powder. See also Magnesia Magma, under **Magnesium Hydroxide.**

DOSAGE: Antacid, 0.6 Gm. Laxative, 8 Gm. (U. S. P.).

Magnesium Citrate, Magnesii Citras.

Magnesium Citrate Solution, Liquor Magnesii Citratis, U. S. P.—Magnesium citrate corresponding to about 1.8 per cent magnesium oxide.

Note: Dispense Magnesium citrate solution in bottles containing not less than 340 cc. and not more than 360 cc. or in bottles containing not less than 195 cc. and not more than 205 cc.

USES: Mild saline laxative.

DOSAGE: 200 cc. (U. S. P.).

Magnesium Hydroxide, Magnesii Hydroxidum, N. F.—$Mg(OH)_2$.—Contains not less than 95 per cent magnesium hydroxide.

A bulky white powder. Dissolves in dilute acids but is practically insoluble in water and in alcohol.

ACTION AND USES: Used for the preparation of the official tablets, essentially an exsiccated form of milk of magnesia employed as a gastric antacid.

DOSAGE: 0.3 Gm. (N. F.).

Magnesia Magma, Magma Magnesiae, U. S. P. (Milk of Magnesia).—A suspension of magnesium hydroxide

($Mg(OH)_2$ about 7.5 per cent) in water, forming a thick, white liquid.

USES: Mild alkaline laxative and tooth wash.

DOSAGE: Antacid, 4 cc. Laxative, 15 cc.

Magnesium Hydroxide Tablets, Taballae Magnesii Hydroxidi, N. F. ("Milk of Magnesia Tablets").

ACTION AND USES: Gastric antacid.

DOSAGE: 0.3 Gm. magnesium hydroxide (N. F.).

Magnesium Oxide, Magnesii Oxidum, U. S. P. (Magnesium, Light Magnesia).—MgO.

A white, bulky, odorless powder with an earthy but not saline taste. Practically insoluble in water; insoluble in alcohol.

ACTION AND USES: Useful antacid and laxative.

DOSAGE: Antacid, 0.25 Gm. Laxative, 4 Gm.

Heavy Magnesium Oxide, Magnesii Oxidum Ponderosum, U. S. P. (Heavy Magnesia).—MgO.

White, dense powder.

ACTION AND USES: Similar to those of magnesium oxide.

DOSAGE: Antacid, 0.25 Gm. Laxative, 4 Gm.

Tribasic Magnesium Phosphate, Magnesii Phosphas Tribasicus, N. F.—$Mg_3(PO_4)_2$.

A white odorless and tasteless powder. It is almost insoluble in water but is readily soluble in diluted mineral acids.

ACTION AND USES: A mildly acting alkali: it may be used to neutralize excess acidity of the stomach, but it does not produce alkalinity of the blood and tissues.

DOSAGE: 1 Gm. (N. F.)

Tribasic Magnesium Phosphate Tablets, Tabellae Magnesii Phosphatis Tribasici, N. F.—The usual sizes contain 0.3 Gm. and 0.5 Gm.

Magnesium Sulfate, Magnesii Sulfas, U. S. P. (Epsom Salt).—Contains from 40 to 52 per cent water.

Small, colorless, odorless crystals with a cooling, saline, bitter taste. Freely soluble in water (1 in 1); practically insoluble in alcohol.

ACTION AND USES: Active saline laxative; used parenterally in tetanus for controlling convulsions which, however, are more safely suppressed by barbiturates.

DOSAGE: 15 Gm. (U. S. P.), in solution. A dilute solution containing 2.5 Gm. of the salt may be given every hour until a laxative effect is secured. The dosage for controlling convulsion of tetanus: 0.6 cc. of a 25 per cent solution for each kilogram of body weight intramuscularly six times daily; in severe cases 0.1 cc. of the 25 per cent solution for each kilogram of weight, intraspinally, repeated daily if necessary.

If respiration is arrested administer physostigmine salicylate, U. S. P., 1 to 2 mg. hypodermically.

Magnesium Sulfate Ampuls, Ampullae Magnesii Sulfatis, N. F.—Contain a sterile solution of magnesium sulfate in water for injection.
DOSAGE: 1 Gm. magnesium sulfate (N. F.).

Magnesium Trisilicate, Magnesii Trisilicas, U. S. P.—$2MgO.3SiO_2.nH_2O$.—Contains not less than 20 per cent magnesium oxide and not less than 45 per cent silicon dioxide.

Fine, white, odorless, tasteless, powder, free from grittiness. Almost insoluble in water and in alcohol. Readily decomposed by mineral acids.

ACTION AND USES: Used for the relief of gastric hyperacidity and pain in gastric and duodenal ulcer.

DOSAGE: 1 Gm. (U. S. P.).

Magnesium Trisilicate Tablets, Tabellae Magnesii Trisilicatis, U. S. P.—The usual sizes contain 0.3 Gm. and 0.5 Gm.

Malt, Maltum.—Malted barley.

Yellowish grains with a characteristic odor and a sweet taste.

ACTION AND USES: Used to digest starch by its diastase.

Malt Extract, Extractum Malti, U. S. P.—Syrupy liquid, capable of converting not less than 5 times its weight of starch into water-soluble sugars.

DOSAGE: 15 Gm. (U. S. P.).

Mandelic Acid, Acidum Mandelicum, U. S. P. (Racemic Mandelic Acid).—$C_6H_5.CHOH.COOH$.

White crystals or a crystalline powder. It is odorless or has a slight aromatic odor. It gradually darkens and decomposes on exposure to light. One Gm. of mandelic acid is soluble in about 6.5 cc. of water at 25 C. It is freely soluble in alcohol.

ACTION AND USES: Mandelic acid renders acid urine bacteriostatic or bactericidal against Escherichia coli, Aerobacter aerogenes, Streptococcus faecalis and organisms of the Proteus, Pseudomonas, Alcaligenes, Salmonella and Shigella groups. Large doses or prolonged use may cause nausea, diarrhea, dysuria and hematuria. It should not be used in the presence of renal insufficiency, since it is normally excreted by the kidneys.

DOSAGE: 3 Gm. (U. S. P.).

Soluble Manganese Citrate, Mangani Citras Solubilis, N. F. (Manganese and Sodium Citrate).

Pale orange or pinkish white powder, as granules or translucent scales, odorless and having a slightly bitter, astringent taste. Slowly soluble in water (1 in 4) and slightly soluble in alcohol.
ACTION AND USES: Manganese salts have been tried as hematinics.
DOSAGE: 0.2 Gm. (N. F.).

Manganese Glycerophosphate, Mangani Glycerophosphas, N. F.
White or pinkish white, odorless powder, almost tasteless. Slightly soluble in water and insoluble in alcohol.
ACTION AND USES: It has no advantage over other manganese salts.
DOSAGE: 0.2 Gm. (N. F.).

Manganese Hypophosphite, Mangani Hypophosphis, N. F.—$Mn(H_2PO_2)_2.H_2O$. *Caution should be observed in compounding manganese hypophosphite with nitrates, chlorates or other oxidizing agents, as an explosion may occur if it is triturated or heated. (N. F.).*
ACTION AND USES: It has no advantage over other manganese salts.
DOSAGE: 0.2 Gm. (N. F.).

Mastic, Mastiche, N. F. (Mastich).—A resin.
Soluble in ether and almost completely soluble in alcohol.
ACTION AND USES: Carminative, without special advantage over cardamom or fennel.

Matricaria, Matricaria, N. F. (German Chamomile, Hungarian Chamomile).—Flower heads.
ACTION AND USES: Used by laity as a bitter, an aromatic tea or a poultice; effects, if any, are due mainly to the hot water.
DOSAGE: 15 Gm. (N. F.).

Menadione, Menadionum, U. S. P. (2-Methyl-Naphthoquinone, Menaphthene, Menaphthone).—$C_{11}H_8O_2$.
Bright yellow, crystalline powder, nearly odorless. It is affected by sunlight. Practically insoluble in water. Soluble in alcohol (1 in 60) and in vegetable oils.

ACTION AND USES: It apparently has a specific effect on prothrombin deficiency, in vitamin K deficiency, in obstructive jaundice, in hemorrhagic states associated with hepatic diseases and in hypoprothrombinemia of the newborn. Should be supplemented by the oral administration of bile salts when these also are deficient. *Caution: Menadione powder is irritating to the respiratory tract and to the skin, and an alcoholic solution has vesicant properties.* (U. S. P.).

DOSAGE: 1 mg. (U. S. P.).

Menadione Tablets, Tabellae Menadioni, U. S. P.—The usual size contains 1 mg.

Menadione Sodium Bisulfite, Menadioni Sodii Bisulfatis, U. S. P. (Menadione Bisulfite).—$C_{11}H_8O_2.NaHSO_3.H_2O$. Contains not less than 49 per cent menadione.
A white, crystalline, odorless powder. Hygroscopic, soluble in water (1 in 2); slightly soluble in alcohol but almost insoluble in ether and in benzene.

ACTION AND USES: A water-soluble derivative of menadione that represents about 50 per cent of the pure compound, which accounts for its vitamin K activity. It is used both orally and by injection in the treatment or prevention of primary and secondary deficiency of this vitamin, particularly in the control of hypoprothrombinemia.

DOSAGE: Intramuscular or intravenous, 2 mg. (U. S. P.); orally, doses not to exceed this amount daily, in tablet form, are usually sufficient. Approximately twice the amount of menadione bisulfite is required to supply an equivalent amount of menadione.

Menadione Sodium Bisulfite Injection, Injectio Menadioni Sodii Bisulfitis, U. S. P.

DOSAGE: As for menadione sodium bisulfite, making further allowance for the dilution of the compound in solution.

Menthol, Menthol, U. S. P.—Obtained from peppermint or other mint oils or prepared synthetically.

Colorless crystals, or as a crystalline powder with a peppermint-like odor and an aromatic taste. Slightly soluble in water; very soluble in alcohol.

ACTION AND USES: Used locally as counterirritant and analgesic; sometimes internally as carminative.

DOSAGE: 0.06 Gm.

Compound Menthol Ointment, Unguentum Mentholis Compositum, N. F.—Menthol (10 per cent) and methyl salicylate (10 per cent) in white wax and hydrous wool fat.

Compound Menthol Spray, Nebula Mentholis Composita, N. F.—Menthol (1 per cent), camphor (1 per cent), methyl salicylate and eucalyptol in light liquid petrolatum.

Merbromin, Merbrominum, N. F.—$C_{20}H_8O_6Br_2Na_2Hg$.—The disodium salt of 2,7-dibrom-4-hydroxymercurifluorescein. It yields about 25 per cent mercury and about 20 per cent bromine.

Iridescent, green scales or granules. It is odorless and is permanent in the air. Freely soluble in water, practically insoluble in alcohol and in acetone and insoluble in chloroform and in ether.

ACTION AND USES: A moderately active antiseptic used in varying strengths of solutions and tinctures.

Merbromin Solution, Liquor Merbromini, N. F.—Merbromin in distilled water yields from each 100 cc. about 2 Gm. anhydrous merbromin.

Clear, red liquid with a yellow-green fluorescence.

ACTION AND USES: Used as a topical antiseptic.

Surgical Merbromin Solution, Liquor Merbromini Chirurgicalis, N. F.—Merbromin (2 per cent) and water (35 per cent) in acetone (10 per cent) and alcohol.

Clear, red liquid with a yellow-green fluorescence.

ACTION AND USES: A tincture-like solution for topical application.

Mercuric Cyanide, Hydrargyri Cyanidum, N. F.—Contains not less than 99 per cent of $Hg(CN)_2$.

Colorless or white, odorless, prismatic crystals or as a white powder. Aqueous solutions are neutral to litmus; it is affected by light. Soluble in water (1 in 13) and in alcohol (1 in 13).

Caution: Mercuric Cyanide is extremely poisonous and special care must be taken to avoid inhalation of fumes evolved when tested with acids.

ACTION AND USES: Drastic diuretic and active antiseptic, both uses of which have been largely superseded by employment of less toxic

organic mercurials. Its antiseptic action is about the same as that or mercuric chloride, over which it has no established advantage.

DOSAGE: Internally, 4 to 8 mg. as a diuretic; locally, solutions of from 1: 4,000 to 1: 2,000 may be used in the eye or on mucous membranes as an antiseptic; a 0.01 per cent solution may be used as a gargle. As little as 0.9 Gm. has caused death by vaginal instillation.

Red Mercuric Iodide, Hydrargyri Iodidum Rubrum, N. F. (Mercuric Iodide). HgI_2. *Caution: Red Mercuric Iodide is extremely poisonous. (N. F.)*

Scarlet-red, odorless, nearly tasteless powder. Practically insoluble in water and slightly soluble in alcohol (1 in 115); soluble in solutions of iodides, sodium thiosulfate and hot solutions of alkali chlorides.

ACTION AND USES: Mercuric iodide, dissolved with potassium or sodium iodide, is used as an antiseptic, germicide and antisyphilitic. It is as effective as mercuric chloride.

DOSAGE: 4 mg. (N. F.).

Red Mercuric Iodide Tablets, Tabellae Hydrargyri Iodidi Rubri, N. F. (Mercuric Iodide Tablets).

Mercuric Nitrate, Hydrargyri Nitras.

Mercuric Nitrate Ointment, Unguentum Hydrargyri Nitratis, N. F. (Citrine Ointment).—Mercury 7 per cent and nitric acid 17 per cent in lard.

ACTION AND USES: Antiseptic, irritant and caustic, used on syphilitic lesions and gangrenous ulcers.

Red Mercuric Oxide, Hydrargyri Oxidum Rubrum, N. F. (Red Precipitate). —HgO.

Heavy, orange-red scales or powder, odorless and with a somewhat metallic taste. Almost insoluble in water, insoluble in alcohol; readily dissolved by nitric acid.

ACTION AND USES: Occasionally used externally in the form of an ointment and as a parasiticide.

Red Mercuric Oxide Ointment, Unguentum Hydrargyri Oxidi Rubri, N. F.—Red mercuric oxide (10 per cent) in wool fat, yellow wax, liquid petrolatum and petrolatum.

Yellow Mercuric Oxide, Hydrargyri Oxidum Flavum, U. S. P. (Yellow Precipitate).—HgO.

Light orange-yellow, heavy, odorless powder with a somewhat metallic taste. Practically insoluble in water, insoluble in alcohol, readily dissolved by dilute hydrochloric acid and nitric acid.

ACTION AND USES: The ointment is used, especially on the eye, as an antiseptic and stimulant.

Black Lotion, Lotio Nigra, N. F. (Black Wash, Aqua Phagedaenica Nigra).—A suspension of mercurous oxide, Hg_2O, produced by the action of lime water on mild mercurous chloride.

USES: Mercurial antiseptic.

Yellow Lotion, Lotio Flava, N. F. (Yellow Wash).—A suspension of mercuric oxide produced by the action of lime water on mercury bichloride.

USES: Mercurial antiseptic.

Yellow Mercuric Oxide Ointment, Unguentum Hydrargyri Oxidi Flavi, U. S. P.—Yellow mercuric oxide (1 per cent) in liquid petrolatum and white ointment. *Caution: During its manufacture and storage this ointment must not come in contact with iron utensils or containers except those made of tin or tin-coated (U. S. P.).*

Mercuric Salicylate, Hydrargyri Salicylas, N. F.—Equivalent to about 57 per cent mercury.

White or nearly white, odorless powder. Nearly insoluble in water or alcohol. Dissolved by solutions of the fixed alkalies or their carbonates.

ACTION AND USES: Used as antisyphilitic especially by intramuscular injection of oily suspensions; also as local antiseptic.

DOSAGE: Intramuscular in oil, 60 mg. (N. F.) once or twice a week.

Mercuric Salicylate Ampuls, Ampullae Hydrargyri Salicylatis, N. F. (Mercuric Salicylate Injection).—Contains an amount of mercury equivalent to 56 per cent of the labeled amount of mercuric salicylate in a suitable fixed oil. The usual sizes contain 0.06 Gm., 0.1 Gm., and 0.12 Gm. mercuric salicylate in 1 cc. of oil.

DOSAGE: Intramuscular 0.1 Gm. of mercuric salicylate (N. F.).

Mercuric Succinimide, Hydrargyri Succinimidum, N. F.—Equivalent to about 50 per cent mercury.

White, odorless crystals or powder, darkening on exposure to light. Soluble in water (1 in 20) and slightly soluble in alcohol.

ACTION AND USES: Similar to those of other mercuric salts. Its solution is said to be less irritating.

DOSAGE: Intramuscular, 15 mg. (U. S. P.).

Mercuric Succinimide Ampuls, Ampullae Hydrargyri Succinimidi, (Mercuric Succinimide Injection). *N. F.*—Approximately 0.01 Gm. of mercury succinimide in 1 cc. of sterile aqueous solution.

DOSAGE: 10 mg. of mercuric succinimide. (N. F.)

Mercurophylline, Mercurophyllina.

Mercurophylline Injection, Injectio Mercurophyllinae, U. S. P.—A sterile solution in water for injection of the sodium salt of β-methoxy-γ-hydroxymercuri propylamide of trimethyl cyclopentane dicarboxylic acid ($C_{14}H_{20}NO_5HgNa$) (the mercuri compound) and of theophylline in approximately molecular proportions. It contains an amount of mercury equivalent to about 40 per cent of the labeled amount of the mercuri compound.

Clear, faintly yellow, odorless liquid and has a slightly alkaline reaction (*pH* about 8.0 to 9.0).

ACTION AND USES: A potent diuretic used to remove excess fluid in edema of congestive heart failure, nephrosis and cirrhosis of the liver with ascites.

DOSAGE: Intramuscular, an amount equivalent to: the mercuri compound 0.1 Gm. and theophylline, 40 mg. (U. S. P.). The usual sizes contain this amount or double this amount in 1 cc.

Mild Mercurous Chloride, Hydrargyri Chloridum Mite, U. S. P. (Mercurous Chloride, Calomel, Subchloride of Mercury).—HgCl.

White or nearly white, odorless powder. Insoluble in water and alcohol. Incompatible with alkalies, with oxidizing acids like nitric acid and with soluble bromides and iodides.

ACTION AND USES: A slow cathartic, fairly powerful and relatively nonirritant. Should usually be followed by a saline laxative. Should not be taken continuously as it may cause salivation. Rarely employed as a diuretic in cardiac dropsies. Intramuscular injections are antisyphilitic but painful.

DOSAGE: 0.12 Gm. (U. S. P.). From 0.005 to 0.02 Gm. may be given every half hour or hour until from 0.1 to 0.2 Gm. have been given. In the treatment of syphilis 0.1 Gm. in oily suspension is injected about once a week.

Mild Mercurous Chloride Ointment, Unguentum Hydrargyri Chloridi Mitis, N. F. (Calomel Ointment).—Mild mercurous chloride (30 per cent) with white petrolatum and hydrous wool fat.

ACTION AND USES: Used by inunction for venereal prophylaxis.

Compound Mild Mercurous Chloride Pills, Pilulae Hydrargyri Chloridi Mitis Compositae, N. F. (Compound Cathartic Pills).—Each pill contains compound colocynth extract, 0.08 Gm., mild mercurous chloride, 0.06 Gm., jalap resin, 0.02 Gm. and gamboge, 0.015 Gm. in diluted alcohol.

DOSAGE: 2 pills (N. F.).

Mild Mercurous Chloride Tablets, Tabellae Hydrargyri Chloridi Mitis, N. F. (Calomel Tablets).

DOSAGE: 60 mg. of mild mercurous chloride (in tablets usually containing an aliquot portion of the average dose) (N. F.).

Mild Mercurous Chloride and Sodium Bicarbonate Tablets, Tabellae Hydrargyri Chloridi Mitis et Sodii Bicarbonatis, N. F. (Calomel and Soda Tablets).

DOSAGE: 60 mg. mild mercurous chloride (in tablets usually containing an aliquot portion of the average dose) (N. F.).

Yellow Mercurous Iodide, Hydrargyri Iodidum Flavum, N. F. (Mercurous Iodide). Contains not less than 99 per cent of HgI.

Strong yellowish orange, odorless, tasteless powder. Practically insoluble in water and insoluble in alcohol and in ether.

ACTION AND USES: Used principally as an antisyphilitic, generally as pills. Ingestion methods of treating syphilis are much less reliable than the intramuscular administration of mercurials and are falling into disuse. Has proved of value in lichen ruber planus.

Yellow Mercurous Iodide Tablets, Tabellae Hydrargyri Iodidi Flavi, N. F. (Mercurous Iodide Tablets).

Mercury, Hydrargyrum, U. S. P. (Quick-silver).—Hg.

Shining, silver-white, odorless, tasteless metal, liquid at ordinary temperatures. Insoluble in the ordinary solvents.

ACTION AND USES: Its preparations are used to secure the systemic effects of mercury and locally against parasites.

Mercury with Chalk, Hydrargyrum cum Creta, N. F.—Mercury (about 38 per cent) with prepared chalk (57 per cent), honey and water.

Light gray, odorless, rather damp powder, with a slightly sweet taste.

ACTION AND USES: A mild cathartic acting like calomel. Also used in the treatment of syphilis in infants and aged patients.

DOSAGE: 0.25 Gm. (N. F.), as powder.

Mercury Mass, Massa Hydrargyri, N. F. (Blue Mass, Blue Pill).—Mercury (about 33 per cent) in pill mass.

USES: Mainly as cathartic.

DOSAGE: 0.2 Gm. (N. F.).

Mercury Oleate, Oleatum Hydrargyri, U. S. P.—Contains about 25 per cent mercuric oxide and a small amount of uncombined oleic acid. *Caution: Oleate of mercury must not be dispensed if globules of mercury have separated. (U. S. P.)*

USES: In the preparation of strong mercurial ointment.

Mild Mercurial Ointment, Unguentum Hydrargyri Mite, U. S. P. (Unguentum hydrargyri, P. I., Diluted Mercurial Ointment, Blue Ointment).—Contains about 10 per cent mercury. Strong mercurial ointment 20 per cent with white ointment 80 per cent.

USES: Locally against pediculosis but may be irritant to the skin.

Strong Mercurial Ointment, Unguentum Hydrargyri Forte, U. S. P. (Unguentum Hydrargyri, Mercurial Ointment).—Metallic mercury (about 50 per cent) and oleate of mercury (4 per cent) with wool fat, white wax and white petrolatum.

USES: To secure the systemic effect of mercury by inunction.

Ammoniated Mercury, Hydrargyrum Ammoniatum, U. S. P. (White Precipitate).—$HgNH_2Cl$, corresponding to about 79 per cent of mercury.

White, odorless lumps or powder with an earthy, afterward styptic and metallic taste. Insoluble in water or alcohol.

ACTION AND USES: An antiseptic in suppurating dermatitis; stimulates healthy inflammatory reaction in psoriasis. A 2 per cent ointment is used in seborrhea after removal of crusts. A 5 per cent ointment is used in impetigo.

Ammoniated Mercury Ointment, Unguentum Hydrargyri Ammoniati, U. S. P. (White Precipitate Ointment).—Ammoniated mercury (5 per cent) in white ointment.

Mercury Bichloride, Hydrargyri Bichloridum, N. F. (Corrosive Sublimate, Mercuric Chloride, Corrosive Mercuric Chloride).—$HgCl_2$.

Heavy, colorless crystals, crystalline masses or white powder, odorless and with a characteristic metallic taste. Slowly soluble in

water (1 in 13.5) and freely soluble in alcohol (1 in 3.8). Its solubility in water is increased by the addition of sodium, or ammonium, chloride. Incompatible with soluble carbonates and hydroxides, with iodides and with alkaloids and other organic compounds. Reduced to calomel or metallic mercury by iron, zinc and other reducing agents. *Caution: Mercury Bichloride is extremely poisonous.*

ACTION AND USES: Germicide and antiseptic; specific antisyphilitic agent. Acute mercuric chloride poisoning is treated by raw eggs and lavage or with 5 per cent solution of formaldehyde sulfoxylate.

DOSAGE: 4 mg., in solution or pills. For hypodermic use in syphilis 10 mg. daily. It produces marked pain and irritation. As antiseptic, externally in solution from 1 in 20,000 to 1 in 2,000. As disinfectant of clothing, in solution 1 in 1,000.

Mercury Bichloride Large Poison Tablets, Toxitabellae Hydrargyri Bichloridi Magnae, N. F. (Large Corrosive Sublimate Tablets, Large Bichloride Tablets).—Tablets of an angular shape, of a distinctive color, not white, and in an angular container having a red printed label bearing the word "POISON" and a statement of the amount of mercury bichloride in each tablet. Each tablet contains about 0.5 Gm. mercury bichloride.

Mercury Bichloride Small Poison Tablets, Toxitabellae Hydrargyri Bichloridi Parvae, N. F. (Small Corrosive Sublimate Tablets, Small Bichloride Tablets).—Tablets of an angular shape, of a distinctive color, not white, in a container of angular shape, having a red printed label bearing the word "POISON" and a statement of the amount of mercury bichloride in each tablet. Each tablet contains about 0.125 Gm. mercury bichloride.

Mersalyl, Mersalyl, U. S. P.—$C_{13}H_{16}HgNO_6Na$.—Contains about 40 per cent mercury.

White or almost white, crystalline powder. It is odorless and has a bitter taste. It is somewhat deliquescent and is gradually decomposed by light. Soluble in water (1 in 1) and in alcohol (1 in 2).

ACTION AND USES: A diuretic for dropsy of cardiorenal disease, in nephrosis, ascites of liver diseases and other conditions. Contraindicated where there are marked tubular and glomerular changes and in intestinal inflammation with diarrhea.

Mersalyl and Theophylline Injection, Injectio Mersalylis et Theophyllinae, U. S. P. (Mersalyl and Theophylline Ampuls).—A sterile solution in water for injection of approximately 10 parts by weight of mersalyl to each 5 parts by weight of theophylline. It contains mercury equivalent to about 42 per cent of the labeled amount of mersalyl.

ACTION AND USES: It produces less local reaction on intramuscular injection and is somewhat more effective than mersalyl alone.

DOSAGE: Intramuscular, an amount equivalent to: mersalyl 0.2 Gm. and theophylline 0.1 Gm. (U. S. P.). The usual sizes contain half of these amounts in 1 cc. For susceptibility, first test the patient with half this dose.

Methacholine Chloride, Methacholinae Chloridum, U. S. P. (Acetyl-β-methylcholine chloride, Mecholyl Chloride).—$C_8H_{18}ClO_2N$.

Colorless or white crystals, or as a powder. It is odorless or nearly so; deliquescent and its solutions are neutral to litmus. Very soluble in water and freely soluble in alcohol.

ACTION AND USES: A parasympathomimetic agent similar in action but more stable than acetylcholine that produces little or none of the nicotinic effects of the latter. It is used orally or by subcutaneous injection for overcoming vascular spasm due to cold and in certain vasospastic conditions of the extremities when its local application by ion transfer is not feasible. It is used by subcutaneous injection in selected cases of paroxysmal auricular tachycardia to break up an attack; it is inferior to quinidine in the prevention of attacks and of no value in auricular fibrillation and other forms of tachycardia. Its intravenous injection or use by any method of administration in bronchial asthma, hyperthyroidism, coronary occlusion or any severe illness is contraindicated. Atropine sulfate, by injection (0.6 mg.), may be used to abolish its cumulative or toxic effects.

DOSAGE: Oral, 0.2 Gm.; parenteral, 10 mg. (U. S. P.). By ion transfer, a 0.2 to 0.5 per cent solution of the drug in distilled water is used. The hygroscopic nature of the chloride requires that it be enclosed in capsules for oral administration, or that the crystals be protected against moisture until placed in solution for injection, ion transfer or oral use.

Methacholine Chloride Capsules, Capsulae Methacholinae Chloridi, U. S. P.

DOSAGE: 0.2 Gm. of methacholine chloride (U. S. P.), usually available in capsules containing that amount.

Methacholine Chloride Injection, Injectio Methacholinae Chloridi, U. S. P.

DOSAGE: Parenteral, 10 mg. methacholine chloride (U. S. P.), usually available in ampuls containing 10 mg. in 1 cc. The drug should never be administered intravenously.

Methenamine, Methenamina, U. S. P. (Hexamethylenamine, Hexamethylenetetramine). Also sold as Urotropin, Aminoform, Formamin, Formin, Cystamin, Cystogen, Urisol and Uritone.—$(CH_2)_6N_4$, a condensation product of ammonia and formaldehyde.

Colorless crystals or white powder, odorless and with a sweetish taste. Freely soluble in water (1 in 1.5) and soluble in alcohol (1 in 12.5). Incompatible with acids, with ammonium salts, with tannin and with mercuric chloride.

ACTION AND USES: Urinary antiseptic, through liberation of formaldehyde in the presence of acids.

DOSAGE: 0.5 Gm. (U. S. P.), in solution. When sodium acid phosphate is given to render the urine acid, methenamine is taken preferably after the phosphate has left the stomach.

Methenamine Ampuls, Ampullae Methenaminae, N. F. (Hexamethylenamine Ampuls).—Sterile solution in water for injection.

Methenamine Tablets, Tabellae Methenaminae, U. S. P.—The usual sizes contain 0.3 Gm. and 0.5 Gm.

Methenamine and Sodium Biphosphate Tablets, Tabellae Methenaminae et Sodii Biphosphatis, N. F. (Methenamine and Acid Sodium Phosphate Tablets).

ACTION AND USES: Physiologically incompatible preparation which liberates part of its formaldehyde in the digestive tract, where it is useless and harmful.

DOSAGE: 0.3 Gm. each of methenamine and sodium biphosphate (N. F.).

Methyl Salicylate, Methylis Salicylas, U. S. P. (Gaultheria Oil, Wintergreen Oil, Betula Oil, Sweet Birch Oil).—Produced synthetically or obtained from the leaves of Gaultheria procumbens Linné (Fam. Ericaceae) or from the bark of Betula lenta Linné (Fam. Betulacea). *Methyl salicylate must be labeled to indicate whether it was made synthetically or distilled from either of these plants. (U. S. P.)*

Colorless, yellow or red liquid with a wintergreen odor and taste. Slightly soluble in water and miscible with alcohol and glacial acetic acid.

ACTION AND USES: Chiefly used as flavor. In sufficient amounts, antirheumatic and antipyretic; the undiluted oil is toxic and has produced many fatalities in children.

DOSAGE: 0.75 cc. May also be applied externally either pure or diluted (10 per cent) in ointment. For absorption through the skin it should be diluted with a fatty oil.

Wintergreen Water, Aqua Gaultheriae, N. F.—Gaultheria Oil, (Methyl Salicylate, U. S. P.) 0.5 per cent in distilled water.

Methylparaben, Methylparabenum, U. S. P. (Methyl Parahydroxybenzoate).—$C_8H_8O_3$.

Colorless or white crystals or crystalline powder. It is odorless, or nearly so, and has a slight, burning taste. Soluble in water (1 in 400) and in alcohol (1 in 2.4). It melts between 125 and 128 C.

ACTION AND USES: Possesses local anesthetic properties but is used chiefly as a preservative in strengths varying from 0.05 to 0.5 per cent, depending on the nature of the preparation to which it is added. Jellies, mucilages, syrups and aqueous solutions in general require about 0.15 per cent; larger amounts are needed in the presence of oils and fats.

Methylparaben, with its propyl counterpart, propylparaben, is used in the preparation of hydrophilic ointment and other bases for official articles.

Methylene Blue, Methylenum Caeruleum, U. S. P. (Methylthionine Chloride, U. S. P. XII).—$C_{16}H_{18}N_3ClS$.

Dark green powder or crystals with a bronzelike luster. Soluble (1 in 25) in water and (1 in 65) in alcohol.

ACTION AND USES: Formerly used in the treatment of malaria, in some neuralgic conditions in which it is of doubtful value and as urinary antiseptic of little value.

DOSAGE: 0.15 Gm. (U. S. P.).

Methylrosaniline Chloride, Methylrosanilinae Chloridum, U. S. P. (Gentian Violet, Methyl Violet, Crystal Violet).—Hexamethylpararosaniline chloride, usually admixed with pentamethylpararosaniline chloride and tetramethylpararosaniline chloride.

A dark green powder or greenish glistening pieces having a metallic luster, with not more than a faint odor. One Gm. is soluble in from 30 to 40 cc. water, in 10 cc. alcohol and in 15 cc. glycerin.

ACTION AND USES: Antiseptic. Used in infected wounds and on serous surfaces and mucous membranes, chiefly in the treatment of affections of the pleural cavity and of joints, especially in empyema and arthritis. It is an anthelmintic when administered in enteric-coated capsules or tablets.

DOSAGE: For direct application, a solution of from 1 in 500 to 1 in 1,000 may be used. For the treatment of burns, local applications in the form of a spray or jelly containing 1 per cent of the dye have been employed. The internal dose is 60 mg. (U. S. P.) as enteric-coated tablet.

Methylrosaniline Chloride Jelly, Gelatum Methylrosanilinae Chloridi, N. F. (Gentian Violet Jelly).—Contains methylrosaniline chloride 1 per cent in a jelly composed of glycerin and tragacanth with exsiccated sodium phosphate, eugenol, eucalyptol, methyl and propyl parahydroxybenzoate in distilled water.

DOSAGE: For direct external application.

Methylrosaniline Chloride Solution, Liquor Methylrosanilini Chloridi, N. F. (Gentian Violet Solution, Crystal Violet Solution).—Methylrosaniline chloride (1 per cent) and alcohol (10 per cent) in water. Alcoholic content about 9 per cent.

Purple liquid, with a slight odor of alcohol. A dilution of solution of methylrosaniline chloride in water (1 in 100) viewed in 1 cm. depth is deep purple in color.

DOSAGE: For external use, undiluted. (N. F.).

Methyltestosterone, Methyltestosteronum, U. S. P.—$C_{20}H_{30}O_2$.

White or slightly yellow crystals or powder, which is odorless. It is stable in air but is affected by light. Insoluble in water but soluble in alcohol; sparingly soluble in vegetable oils.

ACTION AND USES: A synthetic crystalline compound possessing greater androgenic activity by the oral route than either testosterone or its propionate salt administered similarly. It is used as an oral substitute for the more soluble testosterone propionate which is better suited for injection, but its effects are qualitatively identical.

DOSAGE: Oral, 10 mg. Sublingual, 5 mg. (U. S. P.).

Methyltestosterone Tablets, Tabellae Methyltestosteroni, U. S. P.

DOSAGE: Oral 10 mg., sublingual 5 mg. methyltestosterone (U. S. P.), usually available in tablets containing these amounts.

Mezereum, Mezereum, N. F. (Mezereon).—A bark.

ACTION AND USES: Antiquated antisyphilitic and vesicant.

DOSAGE: 0.6 Gm. (N. F.).

Morphine Hydrochloride, Morphinae Hydrochloridum, N. F.

White, odorless needles, masses or powder. Soluble in water (1 in 17.5) and sparingly soluble in alcohol (1 in 52).

ACTION AND USES: See morphine sulfate.

DOSAGE: 8 mg. (N. F.).

Morphine Injection, Injectio Morphinae, U. S. P.—A sterile solution of a suitable morphine salt in water for injection.

DOSAGE: 10 mg. of the morphine salt (U. S. P.) hypodermically; usually available in ampuls containing either 10, 15, 20 or 30 mg. in 1 cc.

Morphine Sulfate, Morphinae Sulfas, U. S. P.

White, odorless crystals or masses. Soluble in water (1 in 16) and slightly soluble in alcohol (1 in 570). It is odorless, and when exposed to the air it gradually loses water of crystallization.

ACTION AND USES: It depresses the brain, causing analgesia and sleep, relieves cough, slows the heart and lessens bowel movements. Overdoses cause death by paralysis of the respiratory center. It should not be used to abolish cough when there is excessive secretion. The danger of inducing the morphine habit is its greatest disadvantage. It is almost devoid of local action.

DOSAGE: 10 mg. (U. S. P.).

Morphine and Atropine Sulfates Tablets, Tabellae Morphinae et Atropinae Sulfatum, N. F.

DOSAGE: Morphine sulfate 15 mg.; atropine sulfate 0.4 mg. (N. F.).

Morphine Sulfate Tablets, Tabellae Morphinae Sulfatis, U. S. P.—The usual sizes contain 5 mg., 8 mg., 10 mg., 15 mg. and 30 mg.

Black Mustard, Sinapis Nigra, U. S. P. (Brown Mustard).—Dried ripe seeds.

ACTION AND USES: Irritant. See allyl isothiocyanate.

DOSAGE: Emetic, 10 Gm. (U. S. P.).

Mustard Plaster, Emplastrum Sinapis, U. S. P. (Mustard Paper).—A mixture of black mustard deprived of its fixed oil and a solution of a suitable adhesive spread on paper, cotton cloth or other suitable backing material.

USES: Counterirritant.

Note: Before applying mustard plaster it should be thoroughly moistened with tepid water. (U. S. P.)

Myrcia Oil, Oleum Myrciae, N. F. (Bay Oil).—A volatile oil.

Soluble in alcohol (1 in 1).

ACTION AND USES: Aromatizing agent used in bay rum.

Compound Myrcia Spirit, Spiritus Myrciae Compositus, N. F.—Oils of myrcia, orange and pimenta in alcohol and water. Alcoholic content about 56.5 per cent.

USES: Perfume and stimulant to the skin.

Myristica, Myristica, U. S. P. (Nutmeg).

ACTION AND USES: Aromatic and carminative.

DOSAGE: 0.5 Gm.

Myristica Oil, Oleum Myristicae, U. S. P. (Nutmeg Oil, East Indian Nutmeg Oil, West Indian Nutmeg Oil).—A volatile oil.

Soluble in alcohol (1 in 1).

ACTION AND USES: Aromatic flavor and carminative.

DOSAGE: 0.03 cc.

Myrrh, Myrrha, U. S. P. (Gum Myrrh).—A gum resin.

ACTION AND USES: Protective and local stimulant to mucous membranes. Internally, carminative.

Myrrh Tincture, Tinctura Myrrhae, U. S. P.—Myrrh (20 per cent) in alcohol. Alcoholic content about 85 per cent.

DOSAGE: 2 cc. (U. S. P.).

Neoarsphenamine, Neoarsphenamina, U. S. P.—It contains about 20 per cent arsenic, and it complies with the requirements of the United States Public Health Service. It must be kept in sealed, colorless glass from which the air is excluded and in a cool place, preferably not above 25 C.

It is a yellow, odorless or nearly odorless, powder, readily oxidized in the dry state or in solution by exposure to the air, becoming darker and more toxic. It is very soluble in water, soluble in glycerin, slightly soluble in alcohol.

ACTION AND USES: Like those of arsphenamine, from which it differs in that it dissolves readily in water, forming a neutral solution ready for injection. The temperature of the solution should not exceed 22 C. and it should be injected immediately. *Caution: Solutions of neoarsphenamine must be freshly prepared when required for use. The solution should not be shaken during its preparation. (U. S. P.)*

Note: The expiration date (the date beyond which the contents cannot be expected beyond reasonable doubt to retain its stability) shall not be more than 3 years from the date of release of that lot by the National Institute of Health. (U. S. P.)

DOSAGE: *Caution!* Intravenous, 0.45 Gm. (U. S. P.), dissolved in cold water.

Prepared Neocalamine, Neocalamina Praeparata, N. F.—Zinc oxide admixed with not more than 7.5 per cent ferric oxide.

Fine powder, weak yellowish orange in color, odorless and almost tasteless. Insoluble in water and in alcohol; it dissolves almost completely in mineral acids.

ACTION AND USES: Used as a protective. Devised as an improvement over prepared calamine.

Neocalamine Liniment, Linimentum Neocalaminae, N. F.—Prepared neocalamine (15 per cent) and olive oil (50 per cent) in calcium hydroxide solution.

Note: Shake neocalamine liniment thoroughly before dispensing. (N. F.)

ACTION AND USES: Devised as an improvement over calamine liniment.

Neocalamine Lotion, Lotio Neocalaminae, N. F.—Prepared Neocalamine (15 per cent), and bentonite magma (40 per cent) in water.

ACTION AND USES: Devised as an improvement over calamine lotion.

Note: Shake neocalamine lotion thoroughly before dispensing. (N. F.)

Phenolated Neocalamine Lotion, Lotio Neocalaminae Phenolata, N. F. (Compound Neocalamine Lotion).—Neocalamine Lotion (99 per cent) and liquefied phenol (1 per cent).

ACTION AND USES: Devised as an improvement over phenolated calamine lotion.

Note: Shake phenolated neocalamine lotion thoroughly before dispensing. (N. F.)

Neocalamine Ointment, Unguentum Neocalaminae, N. F.—Prepared neocalamine (15 per cent), wool fat (12.5 per cent), petrolatum (37.5 per cent), liquid petrolatum (10 per cent) and water (25 per cent).

ACTION AND USES: Devised as an improvement over calamine ointment.

Neocinchophen, Neocinchophenum, U. S. P.—$C_{19}H_{17}O_2N$.

A white to pale yellow, odorless, tasteless powder, practically insoluble in water and soluble in hot alcohol.

ACTION AND USES: Analgesic in gout, chronic arthritis and other conditions. It increases the excretion of urates. Overdoses, or the long continued use of therapeutic doses, may

cause toxic symptoms, the most serious being acute yellow atrophy or hepatitis.

DOSAGE: 0.3 Gm. (U. S. P.).

Neocinchophen Tablets, Tabellae Neocinchopheni, U. S. P.—The usual sizes contain 0.3 Gm. and 0.5 Gm.

Neostigmine Bromide, Neostigminae Bromidum, U. S. P. —$C_{12}H_{19}BrN_2O_2$.

White, crystalline, odorless powder with a bitter taste. Soluble in water (1 in 1) and in alcohol.

ACTION AND USES: It is used orally for the treatment of myasthenia gravis.

DOSAGE: Oral, 15 mg. (U. S. P.).

Neostigmine Bromide Tablets, Tabellae Neostigminae Bromidi, U. S. P.—The usual size contains 15 mg.

Neostigmine Methylsulfate, Neostigminae Methylsulfas, U. S. P.

White, crystalline, odorless powder with a bitter taste. Soluble in water (1 in 10) and less soluble in alcohol.

ACTION AND USES: By injection as for neostigmine bromide.

DOSAGE: Subcutaneous, 0.5 mg. (U. S. P.).

Neostigmine Methylsulfate Injection, Injectio Neostigminae Methylsulfatis, U. S. P.—The usual ampul sizes contain 0.25 mg. and 0.5 mg. in 1 cc.

Nicotinamide, Nicotinamidum, U. S. P. (Nicotinic Acid Amide, Niacinamide).

White, crystalline, nearly odorless powder with a bitter taste. Soluble in water (1 in 1), in alcohol (1 in 1.5) and in glycerin (1 in 10).

ACTION AND USES: See nicotinic acid. Flushing effect does not occur with this amide.

DOSAGE: 25 mg. (U. S. P.), orally.

Nicotinamide Injection, Injectio Nicotinamidi, U. S. P.

ACTION AND USES: Better suited than nicotinic acid for parenteral injection.

DOSAGE: Parenteral, 100 mg. nicotinamide (U. S. P.), usually available in ampuls containing either 50 or 100 mg. per 1 cc. The official dose provides about five times the recommended daily allowance for adult men.

Nicotinamide Tablets, Tabellae Nicotinamidi, U. S. P. (Niacinamide Tablets).—The usual sizes contain 25 mg. and 50 mg.

Nicotinic Acid, Acidum Nicotinicum, U. S. P. (Niacin).—C_5H_4NCOOH.

White crystals or a crystalline powder. It is odorless or has a slight odor. One Gm. of nicotinic acid is soluble in 60 cc. of water at 25 C. It is freely soluble in boiling water and in boiling alcohol, also in aqueous solutions of alkali hydroxides and carbonates.

ACTION AND USES: It is specific in the treatment of acute pellagra. Its administration leads to the disappearance of all alimentary, dermal and other lesions characteristic of the disease, with return to normal of the porphyrin content of the urine and great improvement in mental symptoms when these are due to a deficiency of the nicotinic acid of the diet. It does not influence the polyneuritis often observed in pellagrous patients. A well balanced diet should accompany the administration of nicotinic acid.

DOSAGE: 25 mg. (U. S. P.).

Nicotinic Acid Tablets, Tabellae Acidi Nicotinici, U. S. P. (Niacin Tablets).—Contain about 100 per cent of the labeled amount of nicotinic acid ($C_6H_5O_2N$), including all tolerances. The usual sizes contain 25 mg., 50 mg. and 100 mg.

Nitric Acid, Acidum Nitricum, N. F.—HNO_3 (about 68 per cent).

A colorless, fuming, very corrosive liquid with a suffocating odor. Miscible with water.

ACTION AND USES: Caustic for warts.

Nitrohydrochloric Acid, Acidum Nitrohydrochloricum, N. F. (Aqua Regia, Nitromuriatic Acid).—A mixture of hydrochloric acid (80 per cent) and nitric acid (20 per cent) with the formation of nitrosyl chloride and chlorine.

A golden yellow, fuming, very corrosive liquid having a strong odor of chlorine.

ACTION AND USES: Caustic. Formerly thought to be a "hepatic stimulant," but acts merely like other mineral acids. It should be freshly prepared.

DOSAGE: 0.2 cc. N. F. It should be well diluted.

Diluted Nitrohydrochloric Acid, Acidum Nitrohydrochloricum Dilutum, N. F. (Diluted Nitromuriatic Acid).—An aqueous solution of 22 per cent nitrohydrochloric acid; should be freshly prepared.

DOSAGE: 1 cc. (N. F.) well diluted.

Nitromersol, Nitromersol, N. F. (Metaphen).—$C_7H_5O_3NHg$. The anhydride of 4-nitro-3-hydroxy-mercuri-ortho-cresol. Contains about 57 per cent mercury.

Brownish yellow to yellow granules or powder; odorless and tasteless. Dissolves in solutions of alkalies or ammonia with the formation of a salt. Insoluble in water and almost insoluble in alcohol.

ACTION AND USES: An organic mercury-cresol anhydride compound, employed by the formation of its sodium salt in aqueous and alcohol solutions and in ointment form as an antiseptic and disinfectant for topical application to the skin, eye and mucous membranes in the prophylaxis or treatment of infection and for the disinfection of surgical instruments. An ointment containing nitromersol 1: 3,000 may be used for ophthalmic application.

Nitromersol Solution, Liquor Nitromersolis, N. F.—Prepared with nitromersol 0.2 per cent (1:500) sodium hydroxide and monohydrated sodium carbonate in distilled water.

Caution: Dilutions of nitromersol solution should be prepared as needed, as they tend to precipitate on standing.

DOSAGE: For disinfection of the skin and instruments, solutions of 1:5,000 to 1:1,000; for ophthalmologic application, solution of 1:2,500; for urethral irrigation, solutions of 1:10,000 to 1:5,000.

Nitromersol Tincture, Tinctura Nitromersolis, N. F.—Prepared with nitromersol 0.5 per cent (1:200) and sodium hydroxide in acetone, alcohol and distilled water.

DOSAGE: Same dilutions as for the official aqueous solution, except that the tincture cannot be used in the eye. It may be applied undiluted for preoperative disinfection of the unbroken skin.

Nitrous Oxide, Oxidum Nitrosum, U. S. P. (Nitrogen Monoxide U. S. P. XI.).—Contains not less than 95 per cent by volume of N_2O.

A colorless gas with a slight characteristic odor and a sweetish taste.

ACTION AND USES: For inhalation anesthesia.

Nutgall, Galla, N. F.—The excrescence obtained from young twigs of Quercus infectoria Oliver and other allied species of Quercus (Fam. Fagaceae). Available as unground and powdered nutgall.

ACTION AND USES: Powerful astringent composed of 50 per cent tannic acid and used externally without advantage for the same purposes.

Nutgall Ointment, Unguentum Gallae, N. F.—Composed of finely powdered nutgall 20 per cent with equal parts of wool fat and yellow wax in petrolatum.

Caution: During its manufacture and storage this ointment must not come in contact with iron utensils or containers.

ACTION AND USES: Formerly used for application to hemorrhoids, a treatment of doutful rationale.

Nux Vomica, Nux Vomica, N. F. (Strychni semen, P. I.).—Seeds yielding not less than 1.15 per cent strychnine.

ACTION AND USES: Used as bitter stomachic and tonic, depending on its strychnine.

DOSAGE: 0.1 Gm.

Nux Vomica Alkaloids Solution, Liquor Nucis Vomicae Alkaloidorum, N. F. (Nux Alkaloids Solution).—Brucine sulfate (1.6 per cent) and strychnine sulfate (1.6 per cent) in glycerin, resorcin brown solution and distilled water.

USES: Used principally in veterinary medicine.

Nux Vomica Extract, Extractum Nucis Vomicae, N. F. (Powdered Nux Vomica Extract, Extractum Strychni, P. I.).—Yields about 7.5 per cent strychnine.

DOSAGE: 15 mg. (N. F.).

Nux Vomica Fluidextract, Fluidextractum Nucis Vomicae, N. F.—Nux Vomica (100 per cent) yielding about 1.15 per cent strychnine. Alcoholic content about 60 per cent.

DOSAGE: 0.1 cc. (N. F.).

Nux Vomica Tincture, Tinctura Nucis Vomicae, (Tinctura Strychni, P. I.).—Nux vomica (10 per cent) yielding about 0.115 per cent strychnine. Alcoholic content about 70 per cent.

DOSAGE: 1 cc. (N. F.)

Hydrophilic Ointment, Unguentum Hydrophilicum, U. S. P.—Prepared from 250 Gm. each of stearyl alcohol and white petrolatum with glycerin 120 Gm., sodium laurylsylfate, 10 Gm. and distilled water 370 Gm., preserved with methylben 0.25 Gm. and propylben 0.15 Gm.

ACTION AND USES: A "washable" ointment base designed for ready removal from the skin with water and for the more rapid release of therapeutic agents that may be added to it. It is not recommended as a base for ophthalmic ointments because of the possibility of irritation of mucous membranes.

Oleic Acid, Acidum Oleicum, U. S. P.—$CH_3(CH_2)_7CH.CH(CH_2)_7COOH$. Obtained from fats.

A yellowish or brownish yellow, oily liquid having a lardlike odor and taste. Practically insoluble in water, miscible with alcohol, chloroform, ether and benzene, and with fixed and volatile oils.

ACTION AND USES: Solvent for making oleates.

Oleovitamin A, Oleovitamina A, U. S. P. (Natural Vitamin A in Oil).—Either fish liver oil, or fish liver oil diluted with an edible vegetable oil, or a solution of vitamin A concentrate in fish liver oil or in an edible vegetable oil. The vitamin A shall be obtained from natural (animal) sources. Oleovitamin A contains in each 1 Gm. not less than 50,000 and not more than 65,000 U. S. P. units of vitamin A, and not more than 1,000 U. S. P. units of vitamin D.

Thin oily liquid which may have a fishy, but not rancid, odor and taste.

ACTION AND USES: Used for its vitamin A content. Note: The proportion of the vitamin D to the vitamin A content is only one-tenth the proportion of vitamin D found in cod liver oil.

DOSAGE: Prophylactic, infants and adults, 0.1 cc. (U. S. P.).

Oleovitamin A Capsules, Capsulae Oleovitaminae A, U. S. P.—Oleovitamin A Capsules shall contain either 5,000 or 25,000 U. S. P. units of vitamin A per capsule.

DOSAGE: One capsule containing 5,000 U. S. P. vitamin A units.

Oleovitamin A and D, Oleovitamina A et D, U. S. P.—Either fish liver oil, or fish liver oil diluted with an edible vegetable oil, or a solution of vitamin A and D concentrates in fish liver oil or in an edible vegetable oil. The vitamin A shall be obtained from natural (animal) sources and the vitamin D may be obtained from natural (animal) sources or may be synthetic oleovitamin D. Oleovitamin A and D

contains in each 1 Gm. not less than 850 and not more than 1,100 U. S. P. units of vitamin A and not less than 85 and not more than 110 U. S. P. units of vitamin D.

Thin, oily liquid, which may have a fishy, but not rancid, odor and taste. Slightly soluble in alcohol but miscible in all proportions with ether and with chloroform.

ACTION AND USES: Same as cod liver oil.

DOSAGE: Infants and adults, 8 cc. (U. S. P.).

Concentrated Oleovitamin A and D, Oleovitamina A et D Concentrata, U. S. P.—Either fish liver oil, or fish liver oil diluted with an edible vegetable oil, or a solution of vitamin A and D concentrates in fish liver oil or in an edible vegetable oil. The vitamin A shall be obtained from natural (animal) sources and the vitamin D may be obtained from natural (animal) sources or may be synthetic oleovitamin D. Concentrated oleovitamin A and D contains in each 1 Gm. not less than 50,000 and not more than 65,000 U. S. P. units of vitamin A, and not less than 10,000 and not more than 13,000 U. S. P. units of vitamin D.

Thin, oily liquid, which may have a fishy, but not rancid, odor and taste.

ACTION AND USES: Same as cod liver oil.

DOSAGE: Prophylactic, infants and adults, 0.1 cc. (U. S. P.).

Concentrated Oleovitamin A and D Capsules, Capsulae Oleovitaminae A et D Concentratae, U. S. P. (Concentrated Vitamin A and D Capsules).—Concentrated oleovitamin A and D capsules shall contain 5,000 U. S. P. units of vitamin A and 1,000 U. S. P. units of vitamin D per capsule.

ACTION AND USES: Same as cod liver oil.

DOSAGE: One capsule (U. S. P.).

Synthetic Oleovitamin D, Oleovitamina D Synthetica, U. S. P. (Viosterol in Oil [applying only to Activated Ergosterol in Oil]). A solution of activated ergosterol or activated 7-dehydro-cholesterol in an edible vegetable oil. Synthetic oleovitamin D contains in each 1 Gm. not less than 10,000 U. S. P. units of vitamin D. Synthetic oleovitamin D must be labeled to indicate whether it contains activated ergosterol (*Vitamin D_2 or Viosterol)* or whether it contains activated 7-dehydro-cholesterol (Vitamin D_3).

Clear, colorless to light yellow, oily liquid. It is almost odorless and has a bland taste. Slightly soluble in alcohol but miscible with ether and with chloroform.

ACTION AND USES: Used for the cure and prevention of rickets in human infants.

DOSAGE: Prophylactic, 0.1 cc. (U. S. P.).

Oleyl Alcohol, Alcohol Oleylicum, N. F.—$C_{18}H_{36}O$.

A pale yellow liquid having a faint characteristic odor and a bland, mild taste. Insoluble in water; soluble in alcohol and in ether. It melts between 13 and 19 C.

ACTION AND USES: An emulsifying assistant with emollient properties, chiefly of use in the formulation of cold creams to increase stability between the aqueous and oil phases.

Olive Oil, Oleum Olivae, U. S. P. (Sweet Oil).—A fixed oil.

ACTION AND USES: Emollient, laxative and nutrient.

DOSAGE: 30 cc. (U. S. P.).

Opium, Opium, U. S. P. (Gum Opium).—The dried juice of the opium poppy. Yields not less than 9.5 per cent anhydrous morphine.

ACTION AND USES: Like those of morphine, but opium is absorbed more slowly and is sometimes preferred in the treatment of the gastrointestinal tract, especially for the purpose of checking diarrhea. It is ineffective for external or local application. The routine use of complicated mixtures containing opiates deserves condemnation, since opium should not be prescribed unless it is adapted to the condition of the individual patient.

DOSAGE: 60 mg.

Opium Extract, Extractum Opii, N. F. (Powdered Opium Extract, Extractum opii aquosum, P. I.).—One Gm. of extract represents about 2 Gm. opium. Yields about 20 per cent anhydrous morphine.

DOSAGE: 30 mg. (N. F.).

Carminative Mixture, Mistura Carminativa, N. F. (Dalby's Carminative).—Opium tincture (2.5 per cent), magnesium carbonate (6.5 per cent), potassium carbonate (0.3 per cent), with oils of caraway, fennel and peppermint in syrup and distilled water.

USES: Against colic.

DOSAGE: For infants: 0.5 cc. (N. F.).

Compound Opium and Glycyrrhiza Mixture, Mistura Opii et Glycyrrhizae Composita, N. F. (Brown Mixture).—Camphorated opium tincture (12 per cent), antimony and potassium tartrate, 0.024 per cent, with glycyrrhiza fluidextract, glycerin and ethylnitrate in distilled water. Alcoholic content about 10 per cent.

USES: A popular expectorant; effective mainly through its opium and antimony content.

DOSAGE: 4 cc. (N. F.).

Granulated Opium, Opium Granulatum, U. S. P.—Yields about 10.25 per cent anhydrous morphine.

DOSAGE: 60 mg. (U. S. P.).

Powdered Opium, Opium Pulveratum, U. S. P. (Opii pulvis, P. I.).—Contains about 10.25 per cent anhydrous morphine.

DOSAGE: 60 mg. (U. S. P.).

Ipecac and Opium Powder, Pulvis Ipecacuanhae et Opii, N. F. (Dover's Powder, Pulvis opii et Ipecacuanhae compositus, P. I.).—Powdered opium and ipecac (each 10 per cent) with lactose.

USES: Especially as diaphoretic in incipient colds.

DOSAGE: 0.3 Gm. (N. F.).

Ipecac and Opium Syrup, Syrupus Ipecacuanhae et Opii, N. F. (Dover's Powder Syrup).—Ipecac and opium tincture (8.5 per cent) with cinnamon spirit in syrup. Alcoholic content about 1.5 per cent.

DOSAGE: 4 cc. (N. F.).

Ipecac and Opium Tincture, Tinctura Ipecacuanhae et Opii, N. F. (Dover's Powder Tincture).—Represents opium tincture (100 per cent) and ipecac fluidextract (10 per cent) in diluted alcohol. Alcoholic content about 20 per cent.

DOSAGE: 0.5 cc. (N. F.).

Opium Tincture, Tinctura Opii, U. S. P. (Laudanum, Deodorized Opium Tincture, Tinctura opii, P. I.).—Granulated opium (10 per cent) in alcohol and water; a purified or deodorized aqueous extract yielding about 1 per cent anhydrous morphine.

DOSAGE: 0.6 cc. (U. S. P.).

Camphorated Opium Tincture, Tinctura Opii Camphorata, U. S. P. (Paregoric, Tinctura opii benzoica, P. I.).—Opium tincture (4 per cent), camphor (0.4 per cent), benzoic acid and anise oil in diluted alcohol. Alcoholic content about 45 per cent.

DOSAGE: 4 cc. (U. S. P.).

Orange Oil, Oleum Aurantii, U. S. P. (Sweet Orange Oil).—A volatile oil.

Miscible with dehydrated alcohol and with carbon disulfide.

ACTION AND USES: Aromatic flavor.

Note: Orange oil which has a terebinthinate odor must not be used or dispensed. (U. S. P.)

DOSAGE: 0.1 cc.

Compound Orange Spirit, Spiritus Aurantii Compositus, U. S. P.—Oils of orange, lemon, coriander and anise, in alcohol. Alcoholic content about 68 per cent.

Bitter Orange Oil, Oleum Aurantii Amari, N. F.—A volatile oil.

Soluble in alcohol (1 in 4).

ACTION AND USES: Flavoring agent. *Bitter Orange Oil having a terebinthinate odor is not to be dispensed. (N. F.)*

DOSAGE: 0.1 cc. (N. F.).

Bitter Orange Elixir, Elixir Aurantii Amari, N. F. (Elixir Curassao).—Bitter orange oil, bitter orange peel tincture and orange flower water in syrup, distilled water and alcohol. Alcoholic content about 28 per cent.

Orange Flowers Oil, Oleum Aurantii Florum, N. F. (Neroli Oil).—A volatile oil.

Soluble in alcohol (1 in 1).

ACTION AND USES: Flavoring agent.

Bitter Orange Flowers, Aurantii Flores.

ACTION AND USES: Flavoring agent.

Orange Flower Syrup, Syrupus Aurantii Florum, U. S. P.—Orange flower water (22.5 per cent) and sucrose in distilled water.

Orange Flower Water, Aqua Aurantii Florum, U. S. P.—Prepared by distillation of bitter orange flowers with water. Must be free from fungoid growths.

Bitter Orange Peel, Aurantii Amari Cortex, U. S. P.

ACTION AND USES: Aromatic bitter stomachic, used principally as a flavoring.

Bitter Orange Peel Tincture, Tinctura Aurantii Amari, U. S. P.—Bitter orange peel (20 per cent). Alcoholic content about 60 per cent.

DOSAGE: 4 cc.

Sweet Orange Peel, Aurantii Dulcis Cortex, U. S. P.—The fresh outer rind of orange, not artificially colored.

ACTION AND USES: Flavoring agent.

Orange Syrup, Syrupus Aurantii, U. S. P.—Sweet orange peel tincture, citric acid and sucrose in distilled water. Alcoholic content about 4 per cent. *This preparation must not be dispensed if it has a terebinthinate odor or taste or shows other indications of deterioration. (U. S. P.)*

Sweet Orange Peel Tincture, Tinctura Aurantii Dulcis, U. S. P.—Sweet orange peel from fresh fruit (50 per cent) in alcohol. Alcoholic content about 75 per cent.

DOSAGE: 4 cc.

Orris, Iris, N. F. (Orris Root).—Rhizome.

ACTIONS AND USES: Formerly employed in face powder and tooth powder but not as extensively as in the past, since it has been found to be a relatively frequent allergenic agent.

Ouabain, Ouabainum, U. S. P. (G-Strophanthin).—A nonnitrogenous glycoside $C_{29}H_{44}O_{12}.8H_2O$.

White, odorless crystals or a crystalline powder. Stable in air but affected by light. Slowly soluble in water (1 in 75) and in alcohol (1 in 100). More soluble in hot water and in hot alcohol.

ACTION AND USES: It has the same action and use as strophanthus but is more active when injected subcutaneously or intravenously. It has less tendency to cumulative action than does digitalis. *Caution: Ouabain is extremely poisonous.*

DOSAGE: Intravenous, 0.25 mg. (U. S. P.).

Ouabain Injection, Injectio Ouabaini, U. S. P.—A sterile solution of ouabain in water for injection. The usual sizes contain 0.25 mg. and 0.5 mg. in 1 cc.

Ovary, Ovarium, N. F. (Ovarium Siccum, Desiccated Ovarian Substance).—Dried undefatted, powdered ovary of cattle, sheep or hogs. One part represents, approximately, 6 parts by weight of fresh glands. It contains no diluent or preservative. A yellow or brown powder with characteristic odor. Partially soluble in water.

ACTION AND USES: Not well defined; probably useless when administered orally.

Ovarian Residue, Residuum Ovarii, N. F.—(Desiccated Ovarian Residue).—Dried, undefatted, powdered ovary without the corpus luteum from cattle, sheep or hogs. One part represents approximately 6 parts by weight of fresh ovary without the corpus luteum. It contains no diluent or preservative.

ACTION AND USES: Not well defined; probably useless when administered orally.

Ox Bile, Fel Bovis.

Ox Bile Extract, Extractum Fellis Bovis, U. S. P. (Powdered Oxgall Extract).—A brownish yellow, greenish yellow or brown powder containing an amount of the sodium salts of ox bile acids equivalent to not less than 45 per cent cholic acid.

DOSAGE: 0.3 Gm. (U. S. P.).

Ox Bile Extract Tablets, Tabellae Extracti Fellis Bovis, U. S. P.

Oxophenarsine Hydrochloride, Oxophenarsinae Hydrochloridum, U. S. P. (3-Amino-4-hydroxyphenyl-arsine-oxide Hydrochloride, Mapharsen).—$C_6H_6AsO_2N.HCl$.—Contains about 31 per cent arsenic, when dried. Usually distributed in admixture with suitable buffering substances in the dry state to render the final solution physiologically compatible with human blood. It must be manufactured and packaged for distribution in an establishment licensed by the United States Government, and each lot must meet the requirements of the National Institute of Health and be released by the Institute.

White or nearly white, odorless powder. Soluble in water, in solutions of alkali hydroxides and carbonates and in dilute mineral acids.

Each package of oxophenarsine hydrochloride must bear an expiration date.

ACTION AND USES: An organic trivalent arsenical compound used with buffering agents in solution for intravenous injection in the treatment of early syphilis. The reactions following its use are less severe than those observed after the use of arsphenamines, and the effective dosage is much less than for the latter.

DOSAGE: Intravenous, 45 mg. (U. S. P.). The initial dose is 30 mg. for women; 40 mg. for men; 0.5 mg. per kilogram of body weight for children. The maximum adult dose is 60 mg., the average, 40 to 50 mg., given once every four or five days. The average dose for children lies between 0.5 to 1.0 mg. per kilogram, given at the same intervals.

Oxygen, Oxygenium, U. S. P.

ACTION AND USES: Inhaled for relief of asphyxia, difficult respiration and carbon monoxide poisoning.

Pamaquine Naphthoate, Pamaquinae Naphthoas, N. F. (Aminoquin Naphthoate, Plasmoquin).—Contains about 44 per cent 6-methoxy-8-(1-methyl-4-diethylamino) butylaminoquinoline (pamaquine base) and about 55 per cent methylene-bis-β-hydroxynaphthoic acid.

A yellow to orange-yellow, odorless powder, tasteless and having a local anesthetic effect when placed on the tongue. Insoluble in water but soluble in alcohol and in acetone.

ACTION AND USES: Its antimalarial properties affect chiefly the gametocytes, or sexual forms, but effective doses are apt to produce toxic effects. It may be used to prevent relapses in conjunction with quinine.

Dosage: 20 mg. (U. S. P.).

Pancreatin, Pancreatinum, U. S. P.—Contains enzymes from the pancreas of the hog or ox, principally amylopsin, trypsin and steapsin. Converts not less than 25 times its own weight of starch into soluble carbohydrates and 25 times its weight of casein into proteoses.

A cream-colored powder with a faint odor; slowly and incompletely soluble in water; insoluble in alcohol.

ACTION AND USES: Chiefly for the predigestion of protein and starchy foods. Incompatible with acids and destroyed by the action of normal gastric juice. When the pancreatic juice is absent pancreatin may be given in enteric pills.

DOSAGE: 0.5 Gm. (U. S. P.).

Papain, Papain, N. F.—The dried and purified latex of the fruit of Carioca Papaya Linné (Fam. Caricaceae). It possesses a digestive activity not less than that of Reference Papain.

Light brownish gray to weak reddish brown granules, or as a yellowish gray to weak yellow powder.

ACTION AND USES: A protein-like proteolytic enzyme of the dried juice of the tropical papaya fruit, formerly used internally for "dyspepsia" and "gastric catarrh" in doses of 0.32 to 0.65 Gm. and locally for its lytic action against false membranes or as a dressing for foul wounds. Its medicinal value is questionable.

Papaverine Hydrochloride, Papaverinae Hydrochloridum, U. S. P.—An isoquinoline alkaloid of opium.

White, odorless crystals or powder with a slightly bitter taste. Sparingly soluble in water (1 in 30) and soluble in alcohol.

ACTION AND USES: Relaxes smooth muscles in widely varying degrees; feeble local anesthetic; used in various spasmodic conditions.

DOSAGE: Oral and intravenous, 0.1 Gm.

Papaverine Hydrochloride Injection, Injectio Papaverinae Hydrochloridi, U. S. P.—A sterile solution of papaverine hydrochloride in water for injection.

ACTION AND USES: Used intravenously as an antispasmodic, chiefly against reflex vascular spasm to increase collateral circulation in peripheral or pulmonary arterial embolism.

DOSAGE: Intravenous, 0.1 Gm. of papaverine hydrochloride (U. S. P.), usually available in ampuls containing 30 mg. in 1 cc.

Paraffin, Paraffinum, N. F.—A purified mixture of solid hydrocarbons, obtained from petroleum.

A white, waxy, odorless and tasteless solid, greasy to the touch, melting between 47 and 55 C.

ACTION AND USES: Formerly used in surgery for prosthetic purposes but dangerous, often resulting in so-called "paraffinoma." Used in pharmacy for raising the melting point of ointments and similar products.

Chlorinated Paraffin, Paraffinum Chlorinatum, N. F. (Chlorcosane).

A light yellow, or light amber, clear, thick, oily liquid; odorless and stable in air; insoluble in water; slightly soluble in alcohol; miscible with fat solvents.

ACTION AND USES: Used as a solvent for dichloramine-T, which it dissolves to form an 8 per cent solution. The high viscosity of this solution makes spraying with it inconvenient.

Paraldehyde, Paraldehydum, U. S. P. (Paracetaldehyde).—A polymer of acetaldehyde.

A colorless liquid having a strong characteristic odor and an extremely unpleasant taste and producing first a burning and then a cooling sensation in the mouth. Freely soluble in water (1 in 8) and miscible with alcohol or chloroform.

ACTION AND USES: Prompt and fairly active hypnotic and sedative.

DOSAGE: 4 cc. (U. S. P.). Best administered with cracked ice or ice-cold liquids.

Parathyroid, Parathyroideum.

Parathyroid Injection, Injectio Parathyroidei, U. S. P. (Parathyroid Solution, Parathyroid Extract.).—A sterile solution, in water for injection, of the water-soluble principle or principles of the parathyroid glands, which have the property of relieving the symptoms of parathyroid tetany and of increasing the calcium content of the blood serum.

ACTION AND USES: Abolishes the effects of parathyroid deficiency; used in tetany and in calcium deficiency of the blood. Its use requires careful attention to technic.

DOSAGE: Intramuscular, 25 U. S. P. units. The usual size contains 100 U. S. P. units in 1 cc.

Peanut Oil, Oleum Arachidis, U. S. P. (Arachis Oil).—Fixed oil obtained by cold pressure from peeled seeds of cultivated Arachis hypogaea Linné.

Colorless or pale yellow, oily liquid. Very slightly soluble in alcohol, insoluble in water.

ACTION AND USES: A vegetable oil solvent for various fat-soluble agents employed in solutions for parenteral injection. It is capable of producing allergic sensitization or local scar formation at sites of delayed absorption.

Pectin, Pectinum, N. F.—A purified carbohydrate product obtained from the dilute acid extract of the inner portion of the rind of citrous fruits or from apple pomace. It consists chiefly of partially methoxylated polygalacturonic acids.

"Note: Commercial pectin for the production of jellied food products is standardized to the convenient '100 jelly grade' by addition of dextrose or other sugars and sometimes contains sodium citrate or other buffer salts. This monograph refers to the pure pectin to which no such additions have been made."—N. F.

Coarse or fine powder, yellowish white in color; almost odorless and with a mucilaginous taste. Almost completely soluble in twenty parts of water at 25 C., forming a viscous opalescent colloidal solution which flows readily and is acid to litmus paper. Insoluble in alcohol or in diluted alcohol, and in other organic solvents.

ACTION AND USES: Used for emulsifying cod liver oil and in the treatment of diarrheas.

Pectin Paste, Pasta Pectini, N. F.—Pectin (7.5 per cent), glycerin (18 per cent) and benzoic acid (0.2 per cent) in isotonic three chlorides solution.

Thin Pectin Paste, Pasta Pectini Tenuis, N. F.—Pectin (3.5 per cent), glycerin (7 per cent) and benzoic acid (0.2 per cent) in isotonic three chlorides solution.

Pelletierine Tannate, Pelletierinae Tannas, N. F.—A mixture of alkaloids from pomegranate.

A light yellow, odorless powder with an astringent taste. Slightly soluble in water (1 in 250) and soluble in alcohol.

ACTION AND USES: Anthelmintic and teniafuge.

DOSAGE: 0.25 Gm. (N. F.). May be administered suspended in water. Should be given after fasting and followed after one or two hours by brisk purging. Not more than 0.3 Gm. should be given.

Penicillin Calcium, Penicillinum Calcium, U. S. P.—The calcium salt of an antibiotic substance obtained during growth of Penicillium notatum Westling or Penicillium chrysogenum Thom (Fam. Aspergillaceae), or produced by any other means. It complies with the requirements of the Federal Food and Drug Administration.

White to brown powder, or as granular to scalelike flakes. Very soluble in water and in aqueous saline solutions. It is inactivated when dissolved in alcohol, in glycerin and in other alcohols. Store at temperatures below 25 C.

ACTION AND USES: Antibiotic used for the systemic or local treatment of infections, chiefly those due to gram-positive bacteria.

DOSAGE: Oral, on a fasting stomach, 300,000 units. Intramuscular, 300,000 units (U. S. P.). The effective oral systemic dose is usually four to five times that required to produce adequate blood concentrations by injection. Injections should be repeated every three hours, or the drug should be administered by continuous intravenous infusion.

Penicillin Sodium, Penicillinum Sodicum, U. S. P.—The sodium salt of an antibiotic substance obtained during the growth of Penicillium notatum Westling or Penicillium chrysogenum Thom (Fam. Aspergillaceae), or produced by any other means. It complies with the requirements of the Federal Food and Drug Administration.

A white to brown powder, or as granules or scales. Very soluble in water and in aqueous saline solutions. It is inactivated when dissolved in alcohol, in glycerin and in other alcohols. Store at temperatures below 25 C.

ACTION AND USES: Antibiotic used for the systemic or local treatment of infection due to penicillin-susceptible organisms, chiefly gram-positive bacteria. The alkalinity of the sodium salt is considered too irritant for topical application in powder form.

DOSAGE: Oral, on a fasting stomach, 300,000 units. Intramuscular, 300,000 units (U. S. P.). The oral dose may be as much as four to five times that required by injection to provide corresponding therapeutic levels in the body fluids. Injected doses should be given at three hour intervals or by continuous intravenous infusion.

Penicillin Dental Cones, Denticoni Penicillini, U. S. P.—Composed of penicillin calcium and suitable harmless diluents, and it may have sulfonamide compounds added. The cones must comply with federal regulations and be certified by the Federal Food and Drug Administration.

ACTION AND USES: Designed for dental use for the control of infection in tooth sockets following extraction; the combination with a sulfonamide is considered irrational, and the slow disintegration of the cone may act as a foreign body to delay healing.

DOSAGE: 1 cone (U. S. P.).

Penicillin Injection in Oil and Wax, Injectio Penicillin in Oleo et Cera, U. S. P.—A sterile suspension of penicillin calcium in a mixture of peanut oil, or sesame oil, in which white wax is dispersed. It meets the requirements of the Federal Food and Drug Administration.

ACTION AND USES: An injectable preparation of penicillin calcium in a special vehicle designed by Romansky for delayed

absorption to prolong the systemic action of single injections of the drug from twelve to twenty-four hours. It is used largely in the ambulant treatment of acute gonorrhea where a single dose either may be sufficient to control the infection or will permit follow-up treatment at convenient intervals.

DOSAGE: Intramuscular, 300,000 units of penicillin (U. S. P.), usually available in syringe cartridges or vials containing 100,000, 200,000 or 300,000 units per cc.

Penicillin Ointment, Unguentum Penicillini, U. S. P.—Penicillin calcium in an ointment base approved by the Federal Food and Drug Administration.

ACTION AND USES: Used for the local application of penicillin calcium in concentrations of from 500 to 1,000 units per Gm. Penicillin ointment retains its potency for periods up to one year depending chiefly on its proper storage. Sensitivity to local application of penicillin is occasionally encountered.

Penicillin Tablets, Tabellae Penicillini U. S. P.—Penicillin in the form of its calcium or sodium salt in admixture with buffers such as calcium carbonate, anhydrous sodium citrate and aluminum hydroxide or with other buffers approved by the Federal Food and Drug Administration.

DOSAGE: On a fasting stomach, 300,000 units of penicillin (U. S. P.), usually available in tablets containing 50,000 or more units.

Penicillin Troches, Trochisci Penicillini, U. S. P.—Penicillin in the form of its calcium or sodium salt, or both, admixed with one or more suitable and harmless diluents, binders, lubricants, masticatory substances, coloring and flavoring, approved by the Federal Food and Drug Administration.

ACTION AND USES: Designed for the local penicillin treatment of infection of the oral mucous membranes, especially Vincent's stomatitis. The greater alkalinity of the sodium salt makes it less desirable from the standpoint of local irritation than the calcium salt. The use of troches for oral infection should not be substituted for the institution of appropriate dental or surgical measures.

DOSAGE: One troche (U. S. P.), usually available in troches containing 20,000 units each.

Pentobarbital Elixir, Elixir Pentobarbitali, N. F.—Contains pentobarbital sodium 0.4 per cent in a liquid mixture of sweet orange peel tincture, alcohol, glycerin, syrup, diluted hydrochloric acid, caramel and distilled water.

ACTION AND USES: A palatable oral liquid dosage form of sodium pentobarbital that may be rarely useful when dry preparations cannot be swallowed. Its alcoholic content (12.5 per cent) makes it unsuitable for children; effective adult doses for sedation are too large for convenience.

DOSAGE: 4 cc. (N. F.). One average metric dose contains 14.5 mg. pentobarbital. Six times this dose is needed to provide the average hypnotic dose of 0.1 Gm. sodium pentobarbital.

Pentobarbital Sodium, Pentobarbitalum Sodicum, U. S. P. (Soluble Pentobarbital).—Contains about 91 per cent pentobarbital.

White crystalline granules or a white powder. It is odorless and has a slightly bitter taste. Very soluble in water, freely soluble in alcohol.

ACTION AND USES: Nearly like those of barbital, but it is effective in smaller doses and duration of action is briefer. It is used as a sedative prior to local, spinal or general anesthesia and in emergencies for the relief of convulsions. Its use demands rigid observance of the proper technic.

DOSAGE: 0.1 Gm. (U. S. P.).

Pentobarbital Sodium Capsules, Capsulae Pentobarbitali Sodici, U. S. P. (Soluble Pentobarbital Capsules).—The usual sizes contain 30 mg. and 100 mg.

Pentobarbital Sodium Tablets, Tabellae Pentobarbitali Sodici, U. S. P. (Soluble Pentobarbital Tablets).—The usual sizes contain 30 mg., 50 mg. and 100 mg.

Peppermint, Mentha Piperita, U. S. P.—Dried leaves and flowering tops.

ACTION AND USES: Carminative and flavor (see Peppermint Oil).

DOSAGE: 4 Gm., not administered as such.

Peppermint Oil, Oleum Menthae Piperitae, U. S. P.—A volatile oil.

ACTION AND USES: Aromatic carminative and flavoring agent.

DOSAGE: 0.1 cc.

Peppermint Spirit, Spiritus Menthae Piperitae, U. S. P. (Essence of Peppermint).—Peppermint oil (10 per cent) colored with peppermint in alcohol. Alcoholic content about 82 per cent.

DOSAGE: 1 cc. (U. S. P.).

Peppermint Water, Aqua Menthae Piperitae, U. S. P.—A saturated solution of peppermint oil in distilled water.

DOSAGE: 15 cc.

Pepsin, Pepsinum, N. F.—Contains a proteolytic enzyme from the stomach of the hog.

White or cream colored powder; or yellow or brown scales or granular spongy masses, having a slightly acid or saline taste and no offensive odor. Freely soluble in water; nearly insoluble in alcohol. Digests about 3,500 times its own weight of coagulated egg albumin.

ACTION AND USES: Used to assist in the gastric digestion of proteins. Usually superfluous, since gastric juice generally contains sufficient pepsin. The alcohol of the elixirs may be distinctly harmful in gastric disorders.

DOSAGE: 0.5 Gm. (N. F.).

Pepsin Elixir, Elixir Pepsini, N. F.—Pepsin (3.5 per cent) equivalent to 1.75 per cent Reference Pepsin, citric acid (1.2 per cent), exsiccated sodium phosphate (1.3 per cent), glycerin (20 per cent) aromatic elixir and distilled water. Alcoholic content about 14 per cent.

DOSAGE: 8 cc. (N. F.).

Compound Pepsin Elixir, Elixir Pepsini Compositum, N. F. (Compound Digestive Elixir, Elixir Lactated Pepsin).—Pepsin (3.5 per cent) equivalent to 1.75 per cent Reference Pepsin in a mixture of lactic acid, glycerin, alcohol and distilled water, flavored with orange oil and colored with cudbear tincture. Alcoholic content about 18 per cent.

ACTION AND USES: It is irrational and superfluous. Closely resembles the proprietary elixir Lactopeptin.

DOSAGE: 8 cc. (N. F.).

Pepsin and Rennin Elixir, Elixir Pepsini et Rennini, N. F. (Pepsin Essence).—Pepsin (4.5 per cent) equivalent to 2.25 per cent Reference Pepsin, rennin (1.8 per cent), sweet orange peel tincture, glycerin, alcohol, myristica oil and distilled water. Alcoholic content about 19 per cent.

DOSAGE: 8 cc. (N. F.).

Saccharated Pepsin, Pepsinum Saccharatum, N. F.—Pepsin (10 per cent) with lactose.

DOSAGE: 1 Gm. (N. F.).

Persic Oil, Oleum Persicae, U. S. P. (Apricot Kernel Oil, Peach Kernel Oil).—A fixed oil. It must be labeled to indicate whether it was derived from apricot kernels or from peach kernels.

ACTION AND USES: Those of expressed almond oil.

Peruvian Balsam, Balsamum Peruvianum, U. S. P. (Peru Balsam).

Dark brown, viscid liquid with a vanilla-like odor and a bitter, acrid taste. Soluble in alcohol or chloroform; only partially soluble in ether or petroleum benzine; practically insoluble in water.

ACTION AND USES: Externally in the form of ointments or alcoholic solutions as a stimulant to indolent wounds and ulcers and in the treatment of scabies.

Petrolatum, Petrolatum, U. S. P. (Petroleum Jelly).—A purified semisolid mixture of hydrocarbons from petroleum.

An unctuous, nearly odorless and nearly tasteless semisolid. Insoluble in water and almost insoluble in alcohol.

ACTION AND USES: Protective to the skin and basis for ointments.

Yellow Ointment, Unguentum Flavum, U. S. P.—Wool fat (5 per cent) and yellow wax (5 per cent) in petrolatum (90 per cent).

USES: Used as an ointment base.

Hydrophylic Petrolatum, Petrolatum Hydrophilicum, U. S. P.—Prepared from cholesterol 10 Gm., stearyl alcohol 30 Gm., white wax 80 Gm., wool fat 150 Gm. and white petrolatum 730 Gm.

ACTION AND USES: A water-absorbing ointment base intended for the incorporation of aqueous solutions for local application.

Liquid Petrolatum, Petrolatum Liquidum, U. S. P. (Liquid Paraffin, White Mineral Oil, Heavy Liquid Petrolatum).—A mixture of liquid hydrocarbons.

A colorless, transparent, oily, nearly odorless and nearly tasteless liquid. Insoluble in water or alcohol.

ACTION AND USES: Vehicle for medicinal agents to be applied externally or to the mucous membranes of the nose and throat. Also given internally largely for its mechanical action in constipation. Is not absorbed by the intestine and has no nutritive properties.

DOSAGE: 15 cc. (U. S. P.).

Light Liquid Petrolatum, Petrolatum Liquidum Leve, U. S. P. (Light Liquid Paraffin, Light White Mineral Oil).—A mixture of liquid hydrocarbons obtained from petroleum.

ACTION AND USES: Emollient; used in nasal sprays. It should be used cautiously in order to prevent appreciable amounts of the oil from entering the lungs.

Aromatic Spray, Nebula Aromatica, N. F.—Light liquid petrolatum aromatized with phenol, menthol, thymol, camphor, benzoic acid, eucalyptol, cinnamon oil, clove oil and methyl salicylate.

USES: An aromatic spray.

Liquid Petrolatum Emulsion, Emulsum Petrolati Liquidi, U. S. P. (Mineral Oil Emulsion).—Liquid petrolatum (50 per cent), acacia, syrup, vanillin, alcohol and distilled water.

ACTION AND USES: Lubricant; mainly to soften the feces.

DOSAGE: 30 cc. (U. S. P.).

Liquid Petrolatum with Phenolphthalein Emulsion, Emulsum Petrolati Liquidi cum Phenolphthaleino, N. F.—Heavy liquid petrolatum U. S. P. (50 per cent), phenolphthalein (0.4 per cent), agar, acacia, alcohol, vanillin, saccharin and distilled water.

ACTION AND USES: It combines the laxative action of phenolphthalein with the action of liquid petrolatum emulsion.

DOSAGE: 15 cc. (N. F.).

Solid Petroxolion, Petroxolinum Spissum, N. F. (Petrolatum Saponatum Spissum, Solid Petrox).—An ointment composed of a strong solution of ammonia and oleic acid, yellow wax, light liquid petrolatum and alcohol scented with lavender oil.

White Petrolatum, Petrolatum Album, U. S. P. (White Petroleum Jelly).—Petrolatum decolorized or nearly so.

ACTION AND USES: Same as those of petrolatum.

White Ointment, Unguentum Album, U. S. P. (Simple Ointment).—White petrolatum 90 per cent, wool fat 5 per cent and white wax 5 per cent.

Petroleum Benzin, Benzinum Petrolei, U. S. P. (*Petroleum Ether, Purified Benzin*, U. S. P. XII).—A distillate of hydrocarbons of petroleum.

Caution: It is highly inflammable and its vapor when mixed with air and ignited may explode. (U. S. P.).

A clear, colorless liquid with an ethereal or faint petroleum odor; highly inflammable. Practically insoluble in water, freely soluble in alcohol and miscible with ether, chloroform and benzene and with fixed and volatile oils with the exception of castor oil.

ACTION AND USES: Pharmaceutic solvent.

Phenacaine Hydrochloride, Phenacainae Hydrochloridum, U. S. P.—(Holocaine Hydrochloride).

Colorless crystals, odorless and with a faintly bitter taste, producing transient numbness on the tongue. Sparingly soluble in water (1 in 50) and freely soluble in alcohol.

ACTION AND USES: Local anesthetic, the toxicity being about 50 per cent greater than that of cocaine hydrochloride; it is used mainly for anesthesia in the eye.

DOSAGE: The instillation of 0.3 cc. of a 1 per cent solution into the eye produces anesthesia within from one to ten minutes.

Phenobarbital, Phenobarbitalum, U. S. P. (Phenylethylmalonylurea, Phenobarbitone).

Small, white crystals or powder, odorless; slightly soluble in water (1 in about 1000), freely soluble in alcohol (1 in 10).

ACTION AND USES: It is used as a hypnotic in nervous insomnia and conditions of excitement of the nervous system and chiefly as a sedative and antispasmodic in epilepsy, in which, however, it is only palliative, not curative.

DOSAGE: 30 mg. (U. S. P.). Larger doses up to 0.6 Gm. are sometimes required, but caution should be observed. The long continued use, as in epilepsy, may give rise to toxic symptoms of diverse character including skin eruptions.

Phenobarbital Elixir, Elixir Phenobarbitali, U. S. P.—Phenobarbital (0.4 per cent) in glycerin, alcohol, syrup, amaranth tincture and distilled water flavored with sweet orange peel tincture. Alcoholic content about 14 per cent.

DOSAGE: 4 cc. (U. S. P.).

Phenobarbital Tablets, Tabellae Phenobarbitali, U. S. P.—The usual sizes contain 15 mg., 30 mg. and 100 mg.

Phenobarbital Sodium, Phenobarbitalum Sodicum, U. S. P. (Soluble Phenobarbital, Soluble Phenobarbitone).—$C_{12}H_{11}N_2O_3Na$.—Contains from 89 to 91.5 per cent phenobarbital.

Flaky crystals, white crystalline granules or white powder; odorless, hygroscopic and with a bitter taste. Very soluble in water and soluble in alcohol.

ACTION AND USES: Similar to those of phenobarbital, with the advantage of greater solubility.

DOSAGE: 30 mg. (U. S. P.).

Phenobarbital Sodium Tablets, Tabellae Phenobarbitali Sodici, U. S. P. (Soluble Phenobarbital Tablets).—The usual sizes contain 30 mg. and 100 mg.

Phenol, Phenol, U. S. P.—C_6H_6O.

Colorless crystals or white crystalline masses, sometimes becoming reddish; characteristic odor. Soluble in water (1 in 15) and very soluble in alcohol, glycerin and the fixed or volatile oils.

ACTION AND USES: Antiseptic and germicide; also local anesthetic and caustic.

DOSAGE: 60 mg. (U. S. P.). There are no indications for its oral use.

Camphorated Phenol, Phenol Camphoratum, N. F. (Camphor-Phenol.)—Phenol (30 per cent) and camphor (60 per cent) in liquid petrolatum.

Phenol Glycerite, Glyceritum Phenolis, N. F. (Carbolic Acid Glycerite).—Liquefied phenol (20 per cent) with sodium citrate in glycerin and distilled water.

DOSAGE: 0.3 cc. (N. F.).

Liquefied Phenol, Phenol Liquefactum, U. S. P. (Liquefied Carbolic Acid).—Phenol liquefied by about 10 per cent of water.

A colorless liquid, which may become reddish.

Note: When Phenol is to be mixed with a fixed oil, liquid petrolatum or petrolatum, use melted crystalline phenol, instead of liquefied phenol. (U. S. P.)

DOSAGE: 0.06 cc. Its oral use is not recommended.

Phenol Ointment, Unguentum Phenolis, U. S. P. (Carbolic Acid Ointment).—Phenol (2 per cent), glycerin (2 per cent) and white ointment (96 per cent).

Phenolated Oil, Oleum Phenolatum, N. F. (Oleum Carbolatum, Carbolized Oil).—Phenol (5 per cent) in olive oil.

USES: A mild local stimulant and anesthetic but only feebly antiseptic.

Phenolated Water, Aqua Phenolata, N. F. (Solutio Phenoli, P. I., Carbolic Acid Water).—Liquefied phenol (2.2 per cent) in distilled water.

Phenolphthalein, Phenolphthaleinum, U. S P.

White or nearly white, odorless, tasteless powder. Almost insoluble in water; soluble in alcohol (1 in 15).

ACTION AND USES: Cathartic of variable efficacy. It may cause some irritation to the rectum and lower bowel. It occasionally causes eruptions on the skin, sometimes rather persistent.

DOSAGE: 60 mg. (U. S. P.).

Phenolphthalein Tablets, Tabellae Phenolphthaleini, N. F.

Phenolsulfonphthalein, Phenolsulfonphthaleinum, U. S. P. (Phenol Red).

A crystalline powder; stable in air; very slightly soluble in water (about 1 in 1,300) and slightly soluble in alcohol (1 in 350).

ACTION AND USES: Used for determining the functional activity of the kidney. Excretion begins five to ten minutes after its intramuscular or intravenous injection in normal man. The excretion is delayed in the presence of deficient functional activity, and the degree of this functional deficiency may be estimated by the proportionate amount excreted in two hours.

Phenolsulfonphthalein Injection, Injectio Phenolsulfonphthaleini, U. S. P.—A sterile solution of phenolsulfonphthalein in isotonic sodium chloride solution made with water for injection and rendered soluble with sodium bicarbonate or sodium hydroxide.

DOSAGE: Diagnostic; intravenous or intramuscular, 6 mg. phenolsulfonphthalein (U. S. P.). The usual ampul size contains 6 mg. in 1 cc.

Phenothiazine, Phenothiazina, N. F. (Thiodiphenylamine).—Contains not less than 95 per cent of $C_{12}H_9NS$.

Pale greenish yellow to dark greenish gray powder; it is tasteless and has a slight, characteristic odor. It is slowly oxidized when exposed to the air over a long period of time, the color becoming darkened. Soluble in alcohol (1 in 75), in acetone (1 in 5) and in toluene (1 in 45). Incompletely soluble in ether and insoluble in water.

ACTION AND USES: Apparently admitted to the National Formulary for its use in veterinary medicine. Its use in human beings as a urinary antibacterial agent and anthelmintic is still in the stage of experimental investigation.

Phenylmercuric Chloride, Phenylhydrargyri Chloridum, N. F.—C_6H_5ClHg.—Contains about 64 per cent mercury.

White, leafy crystals which are affected by light. Practically insoluble in water and slightly soluble in hot alcohol.

ACTION AND USES: Disinfectant and antiseptic organic mercurial compound employed chiefly in the manufacture of other less stable but more soluble phenylmercuric salts. Its relative insolubility in aqueous solutions limits its application as an all purpose germicide.

Phenylmercuric Nitrate, Phenylhydrargyri Nitras, N. F.—A mixture of phenylmercuric nitrate and phenylmercuric hydroxide, containing about 63 per cent mercury.

A white, crystalline powder which is affected by light. Saturated solution in water is acid to litmus. Very slightly soluble in water; slightly soluble in alcohol and in glycerin.

ACTION AND USES: Used externally in solutions or ointments as an antiseptic for disinfection of the skin, mucous membranes and superficial infections. The nitrate is relatively soluble but in aqueous solutions is usually buffered to increase stability.

DOSAGE: Buffered 1: 500 solutions are applied undiluted to the intact skin and to minor superficial wounds; dilutions to make from 1: 15,000 to 1: 24,000 solutions are used for application to mucous membranes, on wet dressings or for irrigation of wounds. With the latter strengths, precipitation of the compound from unavoidable concentration due to evaporation should be prevented by addition of 0.5 per cent sodium chloride.

Phenyl Salicylate, Phenylis Salicylas, U. S. P. (Salol).

White powder with an aromatic odor and a characteristic taste. Very slightly soluble in water (1 in 6,700); freely soluble in alcohol (1 in 6) and very soluble in fixed or volatile oils.

ACTION AND USES: Introduced as an intestinal antiseptic (because of the liberation of phenol and salicylic acid). It does not exert any antiseptic action in the large intestine, and its action in the small intestine is usually circumscribed and brief. Used as a coating for small enteric pills.

DOSAGE: 0.3 Gm. (U. S. P.), in powder or capsules.

Phenyl Salicylate Tablets, Tabellae Phenylis Salicylatis, N. F. (Salol Tablets).

Phosphoric Acid, Acidum Phosphoricum, U. S. P.—H_3PO_4 (about 86.5 per cent).

A colorless, odorless, syrupy liquid having a strongly acid taste. Miscible with water and with alcohol. Incompatible with alkalies, alkali carbonates, ferric chloride, lead acetate and solutions of lime.

ACTION AND USES: Similar to those of hydrochloric acid.

Diluted Phosphoric Acid, Acidum Phosphoricum Dilutum, N. F.—H_3PO_4 (about 10 per cent).

DOSAGE: 1 cc. diluted.

Physostigmine Salicylate, Physostigminae Salicylas, U. S. P. (Eserine Salicylate).

White or faintly yellow odorless crystals. Sparingly soluble in water (1 in 75) and soluble in alcohol (1 in 16). *Caution: Physostigmine salicylate is extremely poisonous. (U. S. P.)*

ACTION AND USES: Parasympathetic stimulant (by inhibiting choline esterase). Used especially as a powerful miotic, particularly in glaucoma, and to abolish the mydriatic action of atropine or homatropine; internally against abdominal distention and ileus or intestinal paresis; also in the treatment of myasthenia gravis.

DOSAGE: Internally, 2 mg. (U. S. P.). This dose often fails to relieve abdominal distention, but larger doses require caution. Externally, solutions (should be freshly prepared) from 0.1 to 1 per cent.

Picrotoxin, Picrotoxinum, U. S. P. (Cocculin).—A glycoside.

Flexible, shining, prismatic crystals or a microcrystalline powder. It is odorless and stable in air but is affected by light. Soluble in water (1 in 350), in boiling water (1 in 5) and more readily soluble in diluted acids and alkalies.

ACTION AND USES: It is used in the treatment of severe barbiturate poisoning but requires expert supervision and critical evaluation of the condition of the patient throughout the course of the treatment.

DOSAGE: 2 mg. or more, depending on the severity of the barbiturate poisoning. (U. S. P.)

Picrotoxin Injection, Injectio Picrotoxini, U. S. P.—A sterile solution of picrotoxin in isotonic sodium chloride solution.

DOSAGE: Intravenous, 2 mg. or more of picrotoxin, depending on the severity of the barbiturate poisoning. (U. S. P.). The usual size contains 3 mg. in 1 cc.

Pilocarpine Hydrochloride, Pilocarpinae Hydrochloridum. N. F.

Colorless, odorless crystals with a faintly bitter taste. Very soluble in water (1 in 0.3) and freely soluble in alcohol (1 in 3).

ACTION AND USES: The same as the nitrate.

DOSAGE: 5 mg. (N. F.). Best administered by hypodermic injection.

Pilocarpine Nitrate, Pilocarpinae Nitras, U. S. P.

Shining, colorless, odorless crystals. Freely soluble in water (1 in 4) and slightly soluble in alcohol (1 in 75).

ACTION AND USES: Used especially to increase sweat and other secretions, also locally (0.5 to 4 per cent) as miotic. Caution is necessary when it is used in patients with decidedly weak hearts.

DOSAGE: 5 mg. (U. S. P.).

Pimenta Oil, Oleum Pimentae, N. F. (Pimento Oil, Allspice Oil).—A volatile oil.

Soluble (1 in 2) in 70 per cent alcohol.

ACTION AND USES: Flavoring agent and carminative.

DOSAGE: 0.1 cc. (N. F.).

Dwarf Pine Needle Oil, Oleum Pini Pumilionis, N. F. (Pine Needle Oil).—A volatile oil.

Soluble in from 4.5 to 10 volumes of 90 per cent alcohol.

ACTION AND USES: More aromatic than turpentine oil and used for inhalation in inflammation of the respiratory passages.

Pine Oil, Oleum Pini, N. F.—A volatile oil composed chiefly of tertiary and secondary terpene alcohols from distillation of wood of Pinus palustris Miller or other species of Pinus (Fam. Pinaceae).

Colorless to light amber liquid of characteristic odor. Miscible with alcohol.

ACTION AND USES: Employed as a carrier vehicle in veterinary insecticides used to spray cattle against flies, and in the preparation of pine oil disinfectants. The latter are represented by the official pine oil emulsion concentrate, N. F.

Pine Oil Emulsion Concentrate, Emulsum Olei Pini Concentratum, N. F.—Contains not less than 65 per cent by volume of pine oil and not more than 10 per cent water, as a concentrate prepared by emulsification with soap, sulfonated oil or other suitable agent.

ACTION AND USES: A general purpose pine oil disinfectant usually having a phenol coefficient of from 3 to 4, chiefly active against the intestinal discharges of bacillary infections. Its external application should be confined to veterinary purposes.

DOSAGE: Diluted in the ratio of 5 parts of disinfectant with 95 parts of water.

Pine Tar, Pix Pini, U. S. P. (Pix Liquida).—Obtained by the destructive distillation of pine wood.

A semiliquid viscid blackish brown substance, with an empyreumatic odor and taste. Slightly soluble in water; miscible with alcohol.

ACTION AND USES: Externally, as antiseptic and stimulant in chronic diseases of the skin associated with thickening and scaling. The long-continued use is dangerous. Internally, as irritant expectorant in subacute bronchitis.

DOSAGE: Externally, from 2 to 4 per cent ointment.

Pine Tar Ointment, Unguentum Picis Pini, U. S. P.—Pine tar (50 per cent), yellow wax (15 per cent) and yellow ointment (35 per cent).

Anterior Pituitary, Pituitarium Anterius, N. F. (Pituitary Anterior Lobe, Pituitary Body Anterior Lobe, Desiccated Pituitary Anterior Lobe).—Dried, partially defatted, powdered anterior lobe of the pituitary gland of cattle, sheep or hogs. One part represents approximately 5 parts by weight of fresh anterior lobe. It contains no diluent or preservative.

A gray or yellowish gray powder with a characteristic odor and saline taste. Only partially soluble in water.

ACTION AND USES: The gland elaborates a number of important hormones, but there is no satisfactory evidence that the oral administration produces therapeutic effects.

Posterior Pituitary, Pituitarium Posterius, U. S. P. (Hypophysis Sicca, Pituitary).—The posterior lobe obtained from the pituitary body of cattle.

A yellowish or grayish powder with a characteristic odor. Partially soluble in water.

ACTION AND USES: The solution is used, hypodermically, to strengthen uterine contraction in postpartum hemorrhage and in prolonged labor after the first stage. It also stimulates peristalsis and has been used successfully after abdominal operations. It is antidiuretic in diabetes insipidus and is used in low blood pressure. Oral administration is ineffective.

Posterior Pituitary Injection, Injectio Pituitarii Posterioris, U. S. P. (Posterior Pituitary Solution, Pituitary Solution.). —*The potency of posterior pituitary injection shall be such that 0.1 cc. of the injection shall possess an activity equivalent to 1 U. S. P. posterior pituitary unit. (U. S. P.)*

DOSAGE: By hypodermic injection, 1 cc. (U. S. P.). The usual sizes contain 0.5 cc. (5 U. S. P. units) and 1 cc. (10 U. S. P. units).

Whole Pituitary, Pituitarium Totum, N. F. (Pituitary Gland, Desiccated Pituitary Substance, Pituitary Body).—Dried, partially defatted, powdered pituitary gland of cattle, sheep or hogs. One part represents approximately 5 parts by weight of fresh pituitary gland. It contains no diluent or preservative.

A gray or yellowish gray powder with a characteristic odor and saline taste.

ACTION AND USES: Intended to represent the actions of the anterior and posterior lobes and of the intermediary body, but there is no indication for its therapeutic use, and it is inert when administered orally.

Plague Vaccine, Vaccinum Pestis, U. S. P.—A sterile suspension of killed plague bacilli (Pasteurella pestis) in isotonic sodium chloride solution or other diluent. It contains at least 2,000 million plague organisms per/cc. and complies with requirements of the National Institute of Health.

ACTION AND USES: Used for active immunization against plague. Confers only relative immunity for periods up to six months.

DOSAGE: Hypodermic, for active immunization, 0.5 cc. followed by 1 cc. after a seven to ten days' interval, the latter dose preferably to be repeated once (U. S. P.).

Plantago Seed, Plantaginis Semen, N. F. (Psyllium Seed, Plantain Seed). —Dried, ripe seed.

ACTION AND USES: Mucilaginous laxative.

DOSAGE: 7.5 Gm. (N. F.).

Citrated Normal Human Plasma, Plasma Humanum Normale Citratum, U. S. P. (Normal Human Plasma).—Prepared from the liquid portion of citrated whole blood from human beings in accordance with the requirements of the National Institute of Health.

Citrated normal human plasma may be dispensed as liquid plasma, as frozen plasma or as dried plasma. It must be free from harmful substances detectable by animal inoculation and must not contain an excessive amount of preservative.

ACTION AND USES: It is used in the treatment of surgical and traumatic shock and as a temporary substitute for whole blood in the treatment of hemorrhage. It is also used to combat hypoproteinemia in the treatment of burns.

DOSAGE: Intravenous, 500 cc.

Podophyllum, Podophyllum, N. F. (Mandrake, May Apple).—Yields not less than 5 per cent resin.

ACTION AND USES: That of the resin.

Podophyllum Resin, Resina Podophylli, N. F. (Podophyllin).—The resin from podophyllum.

USES: Slow and effective but rather irritant cathartic.

DOSAGE: 10 mg. (N. F.).

Poplar Bud, Populi Gemma, N. F.

ACTION AND USES: Similar to but without advantage over cubeb or turpentine. Used in proprietary medicines.

DOSAGE: 4 Gm. (N. F.).

Sulfurated Potash, Potassa Sulfurata, N. F.—Chiefly potassium polysulfides and potassium thiosulfate.

Irregular pieces at first liver-brown, later greenish yellow to gray, with a strong hydrogen sulfide odor and a bitter, acrid, alkaline taste. Freely soluble in water (1 in 2); alcohol dissolves only the sulfides. Incompatible with acids and the salts of the heavy metals.

ACTION AND USES: Employed as a parasiticide and to stimulate and soften the skin in chronic cutaneous diseases.

White Lotion, Lotio Alba, N. F. (Lotio Sulfurata).—Zinc sulfate and sulfurated potash (each 4 per cent) in distilled water.

ACTION AND USES: Astringent and parasiticide.

Note: The lotion should be freshly prepared and shaken thoroughly before dispensing. (N. F.)

Potassium Acetate, Potassii Acetas, U. S. P.—CH_3COOK.

White, odorless or nearly odorless powder or crystalline masses with a saline taste. Very soluble in water (1 in 0.5) and freely soluble in alcohol (1 in 3).

ACTION AND USES: Systemic alkali and diuretic, practically equivalent to sodium acetate. It may be administered conveniently in water and milk.

DOSAGE: 1 Gm. (U. S. P.).

Potassium Arsenite, Potassii Arsenis

Potassium Arsenite Solution, Liquor Potassii Arsenitis, U. S. P. (Fowler's Solution, Solutio arsenicalis seu Fowleri, P. I.).—Arsenic trioxide (1 per cent) and potassium bicarbonate (0.76 per cent) in alcohol and distilled water. Contains potassium arsenite corresponding to about 1 per cent arsenic trioxide.

USES: The most frequently used inorganic arsenical preparation. It has an alkaline reaction and therefore tends to precipitate alkaloids.

DOSAGE: 0.2 cc. (U. S. P.).

Potassium Bicarbonate, Potassii Bicarbonas, U. S. P.—$KHCO_3$.

Colorless, transparent crystals or white, granular powder, odorless and having a saline, slightly alkaline taste. Freely soluble in water (1 in 2.8) and almost insoluble in alcohol.

ACTION AND USES: Mild alkali; similar to sodium bicarbonate and without advantage over the latter.

DOSAGE: 1 Gm.

Alkaline Aromatic Solution, Liquor Aromaticus Alkalinus, N. F.—Potassium bicarbonate (2 per cent) and sodium borate (2 per cent) with thymol, eucalyptol, methyl salicylate and cudbear in alcohol, glycerin and water.

USES: A pleasant cleansing mouth wash but of slight antiseptic value.

DOSAGE: "For oral use: undiluted, or, for use in the dental spray bottle, dilute with 5 volumes of water" (N. F.).

Potassium Bitartrate, Potassii Bitartras, N. F. (Cream of Tartar, Acid Potassium Tartrate). $KHC_4H_4O_6$.

Colorless, slightly opaque crystals or white, somewhat gritty powder, odorless and having an acid taste. Only slightly soluble in water (1 in 165) and very slightly soluble in alcohol (1 in 8,820).

ACTION AND USES: Diuretic and laxative. Frequently administered in combination with jalap as a hydragogue cathartic. See compound jalap powder under Jalap.

DOSAGE: 2 Gm. (N. F.).

Potassium Bromide, Potassii Bromidum, U. S. P.—KBr.

White crystals or granular powder, odorless and having a strongly saline taste. Freely soluble in water (1 in 1.5); slightly soluble in alcohol (1 in 250).

ACTION AND USES: Similar to those of sodium bromide. Nerve sedative; diminishes reflex excitability and depresses the motor area of the cortex.

DOSAGE: 1 Gm. (U. S. P.); larger doses may be used when necessary; preferably administered by itself in dilute watery solution. Long-continued administration is apt to produce bromism.

Potassium Bromide Elixir, Elixir Potassii Bromidi, N. F.—Potassium bromide (17.5 per cent) in syrup, water and aromatic elixir. Alcoholic content about 6 per cent.
DOSAGE: 4 cc. (N. F.).

Potassium Carbonate, Potassii Carbonas, U. S. P.—K_2CO_3. $1\frac{1}{2}H_2O$.—It contains about 13 per cent water.

White, odorless, deliquescent granular powder with a strongly alkaline taste. Very soluble in water (1 in 1.0) but insoluble in alcohol.

ACTION AND USES: Strongly alkaline and caustic; very dilute solutions are sometimes used as antacid.
DOSAGE: 1 Gm. (U. S. P.), in diluted solution.

Potassium Chlorate, Potassii Chloras, N. F.—$KClO_3$.—*Great caution should be observed in handling this salt, as dangerous explosions are liable to occur when it is heated or subjected to concussion or trituration with organic substances, such as cork, tannic acid, dust or sucrose, or with charcoal, sulfur, sulfides, hypophosphites, reduced iron or other easily oxidizable substances. (N. F.)*

Colorless, lustrous crystals or white, granular powder, odorless and having a saline taste. Soluble in water (1 in 16.5) and almost insoluble in alcohol.

ACTION AND USES: Used as mouthwash and gargle in stomatitis. Value is questionable. Large doses are actively poisonous, causing disintegration of the blood corpuscles.

Potassium Chlorate with Iron Gargle, Gargarisma Potassii Chloratis cum Ferro, N. F. (Golden Gargle).—Ferric chloride tincture (12 per cent) and potassium chlorate (4.5 per cent) in glycerin and distilled water. Alcoholic content about 7.5 per cent.

Potassium Chlorate Tablets, Tabellae Potassii Chloratis, N. F.
DOSAGE: 0.3 Gm. potassium chlorate (N. F.).

Potassium Chloride, Potassii Chloridum, U. S. P.—KCl.

Colorless crystals or white powder, odorless and having a saline taste. Freely soluble in water (1 in 2.8) and insoluble in alcohol.

ACTION AND USES: Has been recommended for use as table salt in place of sodium chloride, in cases in which the absorption of sodium was considered undesirable. Its value is not established.
DOSAGE: 1 Gm. (U. S. P.).

Potassium Chloride Tablets, Tabellae Potassii Chloridi, U. S. P.—The usual sizes contain 0.3 Gm. and 0.5 Gm.

Potassium Citrate, Potassii Citras, U. S. P.—$C_3H_4OH.(COOK)_3.H_2O$.

Transparent crystals or white, granular powder; odorless and having a cooling saline taste. Freely soluble in water (1 in about 1) and almost insoluble in alcohol.

ACTION AND USES: Systemic alkali and diuretic like potassium acetate but more laxative.
DOSAGE: 1 Gm. (U. S. P.).

Effervescent Potassium Citrate, Potassii Citras Effervescens, U. S. P.—An effervescent mixture representing approximately potassium citrate (20 per cent), sodium bicarbonate (47.7 per cent), tartaric acid (25.2 per cent) and citric acid (16.2 per cent).

DOSAGE: 4 Gm. (U. S. P.).

Potassium Citrate Solution, Liquor Potassii Citratis, N. F.—Potassium citrate (8 per cent) and citric acid (6 per cent) in water.

DOSAGE: 15 cc. (N. F.).

Potassium Guaiacolsulfonate, Potassii Guaiacolsulfonas, N. F.—$C_7H_7O_5SK$.

White crystals or powder with a slightly aromatic odor and bitter taste. Freely soluble in water (1 in 7.5) and insoluble in alcohol.

ACTION AND USES: Formerly supposed to be an intestinal antiseptic and to be useful in bronchitis and tuberculosis but probably without effect in these conditions.

DOSAGE: 0.5 Gm. (N. F.).

Potassium Guaiacolsulfonate Syrup, Syrupus Potassii Guaiacolsulfonatis, N. F.—Potassium guaiacolsulfonate (7.5 per cent) in water and aromatic eriodictyon syrup. Alcoholic content about 6 per cent.

DOSAGE: 4 cc. (N. F.).

Potassium Hydroxide, Potassii Hydroxidum, U. S. P.

(Caustic Potash).—KOH (not less than 85 per cent). *Great caution is necessary in handling potassium hydroxide as it rapidly destroys organic tissues. (U. S. P.).*

Dry, white or nearly white, odorless, deliquescent, hard and brittle flakes, masses or sticks. Very soluble in water (1 in 1) and freely soluble in alcohol (1 in 3).

ACTION AND USES: Internally, an antacid, but objectionable for it is more irritant than the bicarbonate and without advantage over the latter. Externally, caustic and solvent, but it is difficult to control the area of action.

Potassium Hydroxide Solution, Liquor Potassii Hydroxidi, N. F.—KOH (approximately 6 per cent).

DOSAGE: 1 cc. (N. F.) *Caution: This solution should be freely diluted with water before being taken into the mouth. (N. F.).*

Potassium Hypophosphite, Potassii Hypophosphis, N. F.—KH_2PO_2. *Caution should be observed in compounding potassium hypophosphite with other substances as an explosion may occur if it is triturated or heated with nitrates, chlorates or other oxidizing agents. (N. F.)*

White, opaque deliquescent plates, crystalline masses or granular powder, odorless and having a pungent, saline taste. Very soluble in water (1 in 0.6) and freely soluble in alcohol (1 in 9).

ACTION AND USES: Introduced along with other hypophosphites as a cure for tuberculosis; subsequently these have been used as "nerve-foods." There is no proof that the hypophosphites exert any physiologic effect, influence any pathologic process or have any therapeutic value.

DOSAGE: 0.5 Gm. (N. F.).

Potassium Iodide, Potassii Iodidum, U. S. P.—KI.

Transparent, translucent or opaque crystals or white granular powder, with a pungent saline, afterward bitter taste. Very soluble in water (1 in 0.7) and soluble in alcohol (1 in 22). Incompatible with mineral acids and oxidizing agents and should not be prescribed in solution with alkaloids or alkaloid-containing drugs.

ACTION AND USES: Saline expectorant, especially in asthma and chronic bronchitis; diuretic; antirheumatic, and for sclerosis. It has no specific antisyphilitic effect but is employed in old syphilis for absorption of connective tissue exudate.

DOSAGE: 0.3 Gm. (U. S. P.); antisyphilitic, 2 Gm.; best administered in simple solution and well diluted; in syphilis the dose should be gradually increased to the limit of tolerance.

Potassium Iodide Solution, Liquor Potassii Iodidi, N. F. (Saturated Potassium Iodide Solution).—Potassium Iodide 1 Gm. in 1 cc.
DOSAGE: 0.3 cc. (N. F.).

Potassium Iodide Tablets, Tabellae Potassii Iodidi, N. F.

Potassium Nitrate, Potassii Nitras, N. F. (Saltpeter).—KNO_3

Transparent crystals or white powder, odorless and having a cooling saline taste. Freely soluble in water (1 in 3) and slightly soluble in alcohol (1 in 620).

ACTION AND USES: Obsolete diuretic, irritant to kidneys and intestine.
DOSAGE: 1 Gm. N. F.

Potassium Permanganate, Potassii Permanganas, U. S. P.—$KMnO_4$.—*Caution: Great care should be observed in handling potassium permanganate as dangerous explosions are liable to occur if it is brought into contact with organic or other readily oxidizable substance either in solution or in the dry condition. (U. S. P.)*

Dark purple odorless crystals. Soluble in water (1 in 15), forming violet-red to rose-colored solutions which stain the fingers and clothes. Decomposed by alcohol and by glycerin.

ACTION AND USES: Effective deodorant, disinfectant and astringent. There are no indications for its internal use except as an antidote to oxidizable poison, such as morphine and strychnine, in the stomach. Its antidotal usefulness is much more limited than is commonly supposed.

DOSAGE: 0.06 Gm. For application to the skin, 1:500 solution; for irrigation and injection, 1:10,000 to 1:1,000 solution.

Potassium Permanganate Tablets, Tabellae Potassii Permanganatis, N. F.
DOSAGE: 60 mg. potassium permanganate (N. F.).

Potassium Sodium Tartrate, Potassii Sodii Tartras, U. S. P. (Rochelle Salt).

Colorless crystals or white powder, odorless and having a cooling, saline taste. Very soluble in water (1 in 1) and practically insoluble in alcohol.

ACTION AND USES: Saline cathartic of relatively unobjectionable taste.

DOSAGE: 10 Gm. (U. S. P.) in water.

Compound Effervescent Powders, Pulveres Effervescentes Compositi, U. S. P. (Seidlitz Powder).—The blue paper contains sodium bicarbonate (2.5 Gm.) and potassium and sodium tartrate (7.5 Gm.). The white paper contains tartaric acid (2.2 Gm.).

DOSAGE: The contents of a white and of a blue paper, each dissolved in about 60 cc. of water, the solutions mixed and administered just after the effervescence begins to subside (U. S. P.).

Potassium Thiocyanate, Potassii Thiocyanas, N. F. (Potassium Sulfocyanate, Potassium Rhodanate).—KSCN.

Colorless, transparent, hygroscopic crystals; odorless, with a saline taste. Very soluble in water (1 in 0.5) and soluble in alcohol (1 in 12).

ACTION AND USES: Used in hypertension but probably more often harmful than beneficial.

DOSAGE: 0.3 Gm. (N. F.).

Procaine Hydrochloride, Procaine Hydrochloridum, U. S. P. (Procaine).

Small, white crystals or white powder; odorless and stable in air; very soluble in water (1 in 1) and soluble in alcohol (1 in 30).

ACTION AND USES: It is a local anesthetic, much less toxic than cocaine. Epinephrine is commonly added to solutions of procaine hydrochloride intended for subcutaneous injection. It is relatively ineffective when applied to intact mucous membranes.

DOSAGE: The total dose varies widely with the purpose for which it is used.

Procaine Hydrochloride Ampuls, Ampullae Procainae Hydrochloridi, N. F.

DOSAGE: 20 mg. procaine hydrochloride (N. F.).

Procaine Hydrochloride Solution, Liquor Procainae Hydrochloridi, N. F.—Procaine hydrochloride (2 per cent) in isotonic sodium chloride solution. Epinephrine hydrochloride solution 0.01 cc. should be added to each 1 cc. of procaine hydrochloride solution just before it is injected hypodermically.

DOSAGE: Average parenteral dose: 1 cc. (N. F.).

Procaine Hydrochloride Tablets, Tabellae Procainae Hydrochloridi, N. F.

DOSAGE: 50 mg. procaine hydrochloride (N. F.).

Proflavine Dihydrochloride, Proflavinae Dihydrochloridum, N. F.—$C_{13}H_{11}N_3.2HCl.2H_2O$.

Orange-red to brown-red; odorless crystals which are affected by light. Soluble in water (1 in 10), but on standing a precipitate forms. Slightly soluble in ether.

Caution: Proflavine dihydrochloride solutions should be dispensed in light-resistant containers and should be discarded when they become turbid.

ACTION AND USES: A more soluble salt of the acridine dye antiseptic, proflavine base, originally introduced as the sulfate. The dihydrochloride, like the sulfate, is used in solutions (the base, in ointments) for local or topical application in the treatment of infections. The dihydrochloride due to its acid reaction may be more irritant than the sulfate and should not be used in areas where irritation is undesirable.

DOSAGE: Solutions of from 1: 10,000 to 1: 1,000 may be employed for the irrigation of wounds; the higher dilutions are preferable to minimize local irritation when large quantities are to be used.

Proflavine Sulfate, Proflavinae Sulfas, N. F.—$C_{13}H_{11}N_3.H_2SO_4.H_2O$.

A reddish brown, odorless, crystalline powder which is affected by light. Soluble in water (1 in 300). Slightly soluble in alcohol.

Caution: Proflavine sulfate solutions should be dispensed in light-resistant containers and should be discarded when they become turbid.

ACTION AND USES: Proflavine sulfate, like compounds of other acridine dyes, is used as an antiseptic for the local treatment of infection. Proflavine compounds have more rapid but less antiseptic action than acriflavine. The sulfate, though somewhat less soluble than the dihydrochloride, is suitable for topical application in solution. Ointments prepared from proflavine base are also used externally.

DOSAGE: Dilutions of from 1: 10,000 to 1: 1,000 in isotonic sodium chloride solution are used for local irrigation, urethral injection and topical application to the oral mucous membranes, the strength depending on the site and quantity to be used; local irritation is minimized with the higher dilutions. Ointments containing 1 per cent proflavine oleate (prepared from proflavine base) have been used for application to open wounds.

Progesterone, Progesteronum, U. S. P.—$C_{21}H_{30}O_2$.

White, crystalline powder, which is stable in air. Practically insoluble in water but soluble in alcohol.

ACTION AND USES: A crystalline compound representing progestin, the hormone of the corpus luteum, elaborated during the luteal phase of the menstrual cycle and during pregnancy, first by the corpus luteum and, after the third month, by the placenta. Although of some promise in the treatment of deficiency associated with threatened or habitual abortion at that stage of gestation, its clinical value in this and other conditions is not established. It is ineffective orally and for injection must be dissolved in oil solution.

DOSAGE: Intramuscular, 5 mg. (U. S. P.).

Propylparaben, Propylparabenum, U. S. P. (Propyl Parahydroxybenzoate).—$C_{10}H_{12}O_3$.

Small, colorless crystals or a white powder. Soluble in water (1 in 2,000); soluble in alcohol, in ether and in acetone.

ACTION AND USES: The propyl equivalent of methylparaben U. S. P. used similarly as a preservative but effective in smaller amounts. As little as 0.02 per cent is adequate in aqueous solutions, in which it is soluble only up to 0.05 per cent. It is more soluble in alcohol.

Propylene Glycol, Glycol Propylenum, N. F.—$C_3H_8O_2$.

A clear, colorless hygroscopic, viscous liquid. Practically odorless but slightly acrid in taste. Miscible with water and with acetone in all proportions. Immiscible with fixed oils.

ACTION AND USES: A pharmaceutic diluent and solvent used as a constituent of vehicles for both oral and injectable medicinal preparations. In toxicity it is similar to glycerin, but in the amounts ordinarily employed it may be considered essentially nontoxic.

Pumice, Pumex, N. F.—Consists chiefly of complex silicates of aluminum, potassium and sodium of volcanic origin.

ACTION AND USES: Used as an abrasive material, and in pharmacy as an absorbent.

Pyrethrum, Pyrethrum, N. F. (Pyrethrum Flowers, Insect Flowers).—Dried flower-heads.

Yields not less than 0.5 per cent of total pyrethrins (pyrethrin I and pyrethrin II).

ACTION AND USES: Insecticide powder chiefly used in organic solvents as a contact poison spray against household insect pests and disease-carrying insects. It may be applied locally in ointment form in the treatment of pediculosis and scabies unless there is sensitivity to pyrethrum flowers. Dermatitis following its local application may be due to oleoresin impurities; it is not caused by the pyrethrins.

DOSAGE: Locally, an ointment containing an extract of the powdered pyrethrum flowers representing 0.75 per cent of pyrethrins I and II may be applied to the parasitized areas of the skin.

Pyrogallol, Pyrogallol, N. F. (Pyrogallic Acid).

Light, white or nearly white, odorless laminas, fine needles or powder. Freely soluble in water (1 in 2) and in alcohol (1 in 1.5).

ACTION AND USES: Irritant antiseptic in chronic skin diseases. Internally: highly toxic.

DOSAGE: 10 per cent ointment.

Pyroxylin, Pyroxylinum, U. S. P. (Soluble Guncotton).—Chiefly cellulose tetranitrate.

A yellowish white matted mass of filaments resembling raw cotton in appearance; very inflammable. Slowly but completely soluble in 25 parts of a mixture of 3 volumes of ether and 1 volume of alcohol. Also soluble in acetone and in glacial acetic acid. Practically insoluble in alcohol or water.

ACTION AND USES: Base for collodions.

Collodion, Collodium, U. S. P.—Pyroxylin (4 per cent) in a 3:1 mixture of ethyl oxide and alcohol.

USES: Used to form a protective film and as a vehicle for external applications. It is highly inflammable.

Flexible Collodion, Collodium Flexile, U. S. P.—A mixture of collodion (95 per cent) with camphor (2 per cent) and castor oil (3 per cent).

USES: More pliable than collodion and does not contract as much in drying.

Quassia, Quassia, N. F. (Bitter Wood).

ACTION AND USES: Simple bitter stomachic (more disagreeable than gentian); an infusion is also used as enema in the treatment of pinworms.

DOSAGE: 0.5 Gm. (N. F.).

Quillaja, Quillaja, N. F. (Soaptree-bark, Soapbark).

ACTION AND USES: Contains saponin and is employed as a detergent and emulsifying agent. It should not be used internally.

Quinacrine Hydrochloride, Quinacrinae Hydrochloridum, U. S. P. (Mepacrine Hydrochloride, Atabrine *di*Hydrochloride).—Contains about 79 per cent of quinacrine base, $C_{23}H_{30}ClN_3O$.

Bright yellow, crystalline powder. Odorless and has a bitter taste. Soluble in water (1 in 35) and in alcohol.

ACTION AND USES: It destroys the asexual forms of the organisms causing malaria and thus checks the progress of the disease about as effectively as does quinine. Continued daily administration does not prevent infection but suppresses the development of the cycles until the administration is stopped. It causes harmless discoloration of the urine and skin. It may cause gastrointestinal irritation.

DOSAGE: 0.1 Gm. (U. S. P.).

Quinacrine Hydrochloride Tablets, Tabellae Quinacrinae Hydrochloridi, U. S. P.—The usual sizes contain 50 mg. and 100 mg.

Quinidine Sulfate, Quinidinae Sulfas, U. S. P.

Fine, needle-like, white crystals, which darken on exposure to light; odorless and of an intensely bitter taste; sparingly soluble in water (1 in 100); soluble in alcohol (1 in 10).

ACTION AND USES: Quinidine is an optical isomer of quinine and has similar actions. It decreases the irritability and conductivity of the heart, especially in the auricles. It is used to restore the normal rhythm in auricular fibrillation and is temporarily effective in many cases, permanently in some. Used in malaria when quinine is not tolerated.

DOSAGE: [Caution!] 0.2 Gm. (U. S. P.) four times a day.

Quinidine Sulfate Tablets, Tabellae Quinidinae Sulfatis, U. S. P.—The usual sizes contain 0.1 Gm., 0.2 Gm. and 0.3 Gm.

Quinine, Quinina, N. F.—An alkaloid obtained from cinchona.

White, odorless, intensely bitter powder. Very slightly soluble in water (1 in 1,560) and very soluble in alcohol (1 in 1).

ACTION AND USES: Bitter tonic, analgesic and antipyretic; specific against malaria. Contraindicated in ear diseases. Idiosyncrasies are fairly common.

The official quinine salts are more numerous than is necessary.

DOSAGE: 1 Gm. (N. F.).

Quinine Bisulfate, Quininae Bisulfas, U. S. P. (Quinine Acid Sulfate).

Transparent or whitish, odorless, very bitter crystals. Soluble in water (1 in 10) and soluble in alcohol (1 in 25).

ACTION AND USES: Similar to those of quinine dihydrochloride.

DOSAGE: 1 Gm. (U. S. P.).

Quinine Dihydrochloride, Quininae Dihydrochloridum, U. S. P.

White, odorless, extremely bitter powder. Very soluble in water (1 in 0.6) and soluble in alcohol (1 in 12).

ACTION AND USES: Used where concentrated solutions of quinine are wanted.

DOSAGE: Oral, 1 Gm. (U. S. P.).

Quinine Dihydrochloride Ampuls, Ampullae Quininae Dihydrochloridi, N. F. (Quinine Dihydrochloride Injection).—Quinine dihydrochloride in sterile aqueous solution.

Quinine Ethylcarbonate, Quininae Aethylcarbonas, U. S. P. (Euquinine).

White, fine, soft needle-like crystals, usually in masses; odorless and nearly tasteless, but when chewed it becomes bitter; it darkens on exposure to light; slightly soluble in water; freely soluble in alcohol (1 in 3).

ACTION AND USES: Nearly tasteless substitute for quinine.

DOSAGE: 1 Gm. (U. S. P.).

Quinine Hydrobromide, Quininae Hydrobromidum, N. F.

White, odorless, very bitter silky needles. Sparingly soluble in water (1 in 40) and freely soluble in alcohol (1 in 1).

ACTION AND USES: Superfluous; see quinine dihydrochloride.

DOSAGE: 0.3 Gm. (N. F.).

Quinine Hydrochloride, Quininae Hydrochloridum, U. S. P.

White, odorless, very bitter silky needles. Soluble in water (1 in 16) and very soluble in alcohol (1 in 1).

ACTION AND USES: Has the action of other quinine salts; frequently preferred to the sulfate because more soluble.

DOSAGE: Oral 0.6 Gm., intramuscular 0.2 Gm. (U. S. P.).

Quinine and Urethane Injection, Injectio Quininae et Urethani Aethylis Carbamatis, U. S. P. (Quinine Hydrochloride and Ethyl Carbamate Injection U. S. P. XII).—A sterile solution in water for injection of approximately two parts

quinine hydrochloride and one part ethyl carbamate. The usual size contains 0.25 Gm. quinine hydrochloride and 0.12 Gm. ethyl carbamate in 2 cc.

ACTION AND USES: It is used as a sclerosing agent for injection in the obliterative treatment of varicose veins. It is contraindicated in the presence of phlebitis, suppurative ulceration and incompetency of the deep veins.

DOSAGE: The initial injection should be limited to 0.5 cc. of the solution containing 13 per cent quinine hydrochloride and 6.5 per cent ethyl carbamate to determine idiosyncrasy. The average injection is 1 cc. and should not exceed 2 cc. The total injection at all sites should never exceed 5 cc. of the solution referred to. Intervals of series of treatments should not be less than two or three days.

Quinine Phosphate, Quininae Phosphas, N. F.

White, odorless, bitter crystals or powder. Slightly soluble in water (1 in 600) and sparingly soluble in boiling alcohol (1 in 60).

ACTION AND USES: Those of quinine sulfate.

DOSAGE: 0.3 Gm. (N. F.).

Quinine Salicylate, Quininae Salicylas, N. F.

White, odorless, bitter needles or powder, which may become pink when kept. Slightly soluble in water and soluble in alcohol (1 in 15).

ACTION AND USES: Those of quinine sulfate.

DOSAGE: 0.3 Gm. (N. F.).

Quinine Sulfate, Quininae Sulfas, U. S. P.

White, odorless, very bitter, efflorescent crystals. Slightly soluble in water (1 in 810) and in alcohol (1 in 120).

ACTION AND USES: The most commonly used quinine salt but inferior to the dihydrochloride or to quinine and urea hydrochloride where a soluble salt is desired.

DOSAGE: 0.6 Gm. (U. S. P.).

Cinchona Alkaloid Elixir, Elixir Cinchonae Alkaloidorum N. F. (Elixir Calisaya Alkaloidal)—Quinine sulfate (0.2 per cent), cinchonidine sulfate (0.1 per cent), cinchonine sulfate (0.1 per cent), compound cudbear tincture and aromatic elixir. Alcoholic content about 22 per cent.

USES: Imitation of cinchona, minus the tannin. No advantage over quinine sulfate.

DOSAGE: 8 cc. (N. F.).

Quinine Sulfate Capsules, Capsulae Quininae Sulfatis, N. F.

DOSAGE: 0.6 Gm. quinine sulfate (N. F.), usually available in capsules containing 60 mg. and 0.12, 0.2, 0.25 and 0.3 Gm.

Quinine Sulfate Tablets, Tabellae Quininae Sulfatis, U. S. P.—The usual sizes contain 0.1 Gm., 0.2 Gm. or 0.3 Gm.

Quinine and Urea Hydrochloride, Quininae et Ureae Hydrochloridum, N. F.—A double salt of quinine and urea.

Colorless, translucent crystals or white, granular powder, odorless and having a very bitter taste. Very soluble in water (1 in 1) and freely soluble in alcohol (1 in 3).

ACTION AND USES: Less irritating than other soluble quinine salts and therefore better suited for use as a local anesthetic. Great caution is necessary when it is injected intravenously.

Quinine and Urea Hydrochloride Ampuls, Ampullae Quininae et Ureae Hydrochloridi, N. F.—Approximately 0.5 Gm. quinine and urea hydrochloride in 1 cc. of sterile aqueous solution.

DOSAGE: 0.5 Gm. quinine and urea hydrochloride (N. F.).

Rabies Vaccine, Vaccinum Rabies, U. S. P.—An uncontaminated suspension of the attenuated, diluted, dried or dead, fixed virus of rabies. (U. S. P.)

ACTION AND USES: For establishing immunity to rabies in one who has been bitten by a rabid animal.

DOSAGE: Hypodermic, for active immunization, the contents of one container, to be repeated at proper intervals (U. S. P.). The treatment consists of a series of doses continued for from fourteen to twenty-one days, depending on the location and severity of the injury.

Raspberry, Rubus Idaeus.

ACTION AND USES: Flavoring.

Raspberry Juice, Succus Rubi Idaei, N. F.—Liquid expressed from the fresh ripe fruit.

Clear liquid with an aromatic, characteristic odor and a characteristic sour taste.

ACTION AND USES: Used in the preparation of raspberry syrup.

Raspberry Syrup, Syrupus Rubi Idaei, N. F.—Juice of ripe raspberries in sucrose, alcohol and distilled water. Alcoholic content 1 to 2 per cent.

Rectified Tar Oil, Oleum Picis Rectificatum, U. S. P. (Oleum Picis Liquidae Rectificatum).—A volatile oil.

Very soluble in alcohol.

ACTION AND USES: Internally as expectorant; externally as antiseptic, irritant and parasiticide; used in skin diseases. Long-continued use is dangerous.

DOSAGE: Internally, 0.2 cc.

Pine Tar Syrup, Syrupus Picis Pini, U. S. P. (Syrupus Picis Liquidae, Tar Syrup).—Rectified tar oil (0.1 per cent) in sucrose and distilled water.

DOSAGE: 10 cc. (U. S. P.).

Compound Tar Ointment, Unguentum Picis Compositum, N. F.—Rectified tar oil (4 per cent), zinc oxide (3 per cent) and bezoin tincture in yellow wax, lard and cottonseed oil.

Red Saunders, Santalum Rubrum, U. S. P.—The heartwood.

ACTION AND USES: Used as a coloring agent.

Rennin, Renninum, N. F.—Milk-curdling enzyme from the stomach of the calf. Possesses a coagulating ability of about 100 per cent standard rennin, N. F.

Grayish white or yellowish white powder or yellowish grains or scales with a characteristic, slightly saline taste and a peculiar odor. Partially soluble in water and in diluted alcohol.

ACTION AND USES: For making whey and junket.

Resorcin Brown, Resorcinol Fuscum, N. F.—$C_{20}H_{17}N_4O_5SNa$.—The monosodium salt of 4-*p*-sulfophenylazo-2-(2,4-xylylazo)-1,3-resorcinol.

Strong brown to deep brown powder. Soluble in about 15 cc. of water; soluble in glycerin, methyl and ethyl alcohol; sparingly soluble in ethyl ether and in acetone.

ACTION AND USES: Used as a dye and in dermatology.

Resorcin Brown Solution, Liquor Resorcinolis Fusci, N. F.—Resorcin brown (0.5 per cent) in distilled water.

Odorless, clear reddish brown liquid.

Resorcinol, Resorcinol, U. S. P. (Resorcin).

Colorless or nearly colorless crystals or powder with a faint, peculiar odor and a taste at first sweetish, afterward bitter. Very soluble in water (1 in 1) and in alcohol (1 in 1).

ACTION AND USES: Irritant, antiseptic; externally in skin diseases.

DOSAGE: 0.125 Gm.

Compound Resorcinol Ointment, Unguentum Resorcinolis Compositum, N. F.—Resorcinol, zinc oxide, bismuth subnitrate and rectified birch tar oil (each 6 per cent), in yellow wax, petrolatum, wool fat and glycerin.

USES: Complex antiseptic ointment.

Mild Resorcinol, Pasta Resorcinolis Mitis, N. F. (Lassar's Mild Resorcinol Paste).—Resorcinol (10 per cent), zinc oxide (25 per cent), starch and light liquid petrolatum.

Strong Resorcinol Paste, Pasta Resorcinolis Fortis, N. F. (Lassar's Stronger Resorcinol Paste.)—Resorcinol (20 per cent), zinc oxide (20 per cent), starch and light liquid petrolatum.

Resorcinol Monoacetate, Resorcinolis Monoacetas, N. F. (Resorcin Acetate).—$C_8H_8O_3$.

A viscous, pale yellow or amber liquid. Sparingly soluble in water but soluble in alcohol and other organic solvents.

ACTION AND USES: Similar to resorcinol but milder and more lasting because of the gradual liberation of resorcinol and does not impart a greenish tint to light or gray hair. Used externally in lotion or ointment as an adjuvant in the treatment of acne, sycosis vulgaris, alopecia and seborrhea.

DOSAGE: Applied to the skin in ointments of from 5 to 20 per cent; for the scalp, in alcoholic lotions of from 3 to 5 per cent.

Rhubarb, Rheum, U. S. P.—Rhizone and root of certain species, or of hybrids of Rheum (except Rheum rhaponticum), grown in China or Tibet and deprived of periderm tissue.

ACTION AND USES: Efficient and pleasant laxative, its action resembling that of cascara. It is, however, also somewhat astringent. Used especially in the form of aromatic tincture and aromatic syrup.

The official preparations of rhubarb are more numerous than is necessary.

DOSAGE: 1 Gm. (U. S. P.).

Alkaline Rhubarb Elixir, Elixir Rhei Alkalinum, N. F. (Neutralizing Cordial).—Rhubarb fluidextract (1.6 per cent), hydrastia fluidextract (0.8 per cent) and potassium carbonate (1.6 per cent) with cinnamon tincture, and peppermint spirit in syrup and diluted alcohol. Alcoholic content about 36 per cent.

DOSAGE: 4 cc. (N. F.).

Rhubarb Extract, Extractum Rhei, N. F. (Powdered Rhubarb Extract).—One Gm. of extract represents 2 Gm. of rhubarb.

DOSAGE: 0.5 Gm. (N. F.).

Rhubarb Fluidextract, Fluidextractum Rhei, N. F.—Rhubarb (100 per cent). Alcoholic content about 59 per cent.

DOSAGE: 1 cc. (N. F.).

Compound Rhubarb Powder, Pulvis Rhei Compositus, N. F. (Gregory's Powder).—Rhubarb (25 per cent), ginger (10 per cent) and magnesium oxide.

DOSAGE: 2 Gm. (N. F.).

Rhubarb and Soda Mixture, Mistura Rhei et Sodae, N. F.—Rhubarb fluidextract (1.5 per cent), ipecac fluidextract (0.3 per cent), sodium bicarbonate (3.5 per cent), glycerin and peppermint spirit in distilled water. Alcoholic content about 3 per cent.

DOSAGE: 4 cc. (N. F.).

Rhubarb Syrup, Syrupus Rhei, N. F.—Rhubarb fluidextract (10 per cent), cinnamon spirit and potassium carbonate in distilled water and syrup.

DOSAGE: 10 cc. (N. F.).

Aromatic Rhubarb Syrup, Syrupus Rhei Aromaticus, U. S. P.—Aromatic rhubarb tincture (15 per cent) and potassium carbonate in syrup.

DOSAGE: 10 cc. (U. S. P.).

Rhubarb Tincture, Tinctura Rhei, N. F.—Rhubarb (20 per cent) and cardamom seed in glycerin, alcohol and water. Alcoholic content about 45 per cent.

DOSAGE: 4 cc. (N. F.).

Aromatic Rhubarb Tincture, Tinctura Rhei Aromatica, U. S. P.—Rhubarb (20 per cent), cinnamon, clove and myristica in glycerin, alcohol and distilled water. Alcoholic content about 45 per cent.

DOSAGE: 4 cc. (U. S. P.).

Sweet Rhubarb Tincture, Tinctura Rhei Dulcis, N. F.—Rhubarb (10 per cent), glycyrrhiza, anise and cardamom seed in glycerin, diluted alcohol and water. Alcoholic content about 44 per cent.

DOSAGE: 4 cc. (N. F.).

Riboflavin, Riboflavinum, U. S. P. (Lactoflavin, Vitamin B_2, Vitamin G).—$C_{17}H_{20}N_4O_6$.

Orange yellow, crystalline powder having a slight odor. When dry it is not appreciably affected by diffused light, but in solution, especially in the presence of alkalies, it deteriorates on exposure to light. Soluble in water (1 in 10,000) but more soluble in isotonic sodium chloride solution. It is less soluble in alcohol, insoluble in ether and in chloroform but very soluble in dilute alkalies.

ACTION AND USES: It is a specific for the symptoms of riboflavin deficiency: corneal vascularization, a typical glossitis followed by reddened lips and, finally, cheilosis.

DOSAGE: 5 mg. (U. S. P.).

Riboflavin Injection, Injectio Riboflavini, U. S. P.—Sterile solution of riboflavin in water for injection, which may contain nicotinamide, urea or other suitable, harmless solubilizing agent to increase the solubility of the riboflavin.

DOSAGE: 5 mg. riboflavin (U. S. P.), usually available in ampuls containing 0.2 mg. in 1 cc., 1 mg. in 2 cc. and 5 mg. in 1 cc. The official dose represents about twice the recommended daily allowance for adult men.

Riboflavin Tablets, Tabellae Riboflavini, U. S. P.—The usual sizes contain 1 mg. and 5 mg.

Rice Polishings, Perpolitiones Oryzae, U. S. P. (Rice Bran, Tikitiki).—The fine, flaky pericarp and spermoderm fragments, the embryo, aleurone layer and outer adhering cells of the starchy endosperm of the grain. Contain not more than 40 per cent starch and not more than 10 per cent rice hull or other foreign matter.

Fine, flaky, yellowish white to pale orange powder with a non-rancid odor and sweetish taste.

ACTION AND USES: Used as a source of thiamine.

Rice Polishings Extract, Extractum Perpolitionum Oryzae, U. S. P. (Tikitiki Extract, Rice Bran Extract, Extracto de Salvado).—Contains, in each 1 cc., not less than 20 U. S. P. units of vitamin B_1 and represents approximately 14.5 Gm. of rice polishings.

Dark brown, viscous liquid having the odor of burnt sugar and a sweetish taste. Miscible with cold water but more readily miscible with warm water.

DOSAGE: 8 cc. (U. S. P.).

Rose, Rosa, N. F. (Red Rose Petals, Rosa Gallica, French Rose).—Petals. ACTION AND USES: Mildly astringent; antiquated.

Rose Oil, Oleum Rosae, U. S. P. (Otto of Rose).—A volatile oil distilled with steam from the fresh flowers of Rosa gallica Linné, Rosa damascena Miller, Rosa alba Linné and Rosa centifolia Linné and from varieties of these species (Fam. Rosaceae).

USES: As perfume.

Cabbage Rose, Rosa Centifolia.

Rose Water, Aqua Rosae, U. S. P.—A mixture of stronger rose water with distilled water.

Rose Water Ointment, Unguentum Aquae Rosae, U. S. P.—Sodium borate (0.5 per cent), spermaceti, white wax, expressed almond oil, rose water and rose oil.

USES: Emollient.

Stronger Rose Water, Aqua Rosae Fortior, U. S. P.—Prepared by distilling fresh cabbage roses with water.

Rosemary Oil, Oleum Rosmarini, U. S. P.—A volatile oil.

Soluble (1 in 10) in 80 per cent alcohol.

ACTION AND USES: Aromatic flavor, carminative and rubefacient.

DOSAGE: 0.1 cc.

Rosin, Resina, N. F. (Colophony).—The resin obtained from certain species of Pinus (Fam. Pinaceae).

ACTION AND USES: Used in the preparation of ointments and plasters. Rubefacient.

Rosin Cerate, Ceratum Resinae, U. S. P.—Rosin, yellow wax and lard.

Compound Rosin Cerate, Ceratum Resinae Compositum, N. F.—Rosin, yellow wax, prepared suet, turpentine and linseed oil.

Adhesive Plaster, Emplastrum Adhaesivum, U. S. P. (Adhesive Tape).—Consists of a mixture with pressure-sensitive adhesive properties spread evenly on fabric, the back of which may be coated with a water-repellent film.

Sterile Adhesive Plaster, Emplastrum Adhaesivum Sterile, U. S. P. (Sterile Adhesive Tape).

The adhesive surface must be protected by strips of Holland cloth or other protective material of not less than the width of the plaster.

Sterile adhesive plaster must be protected from contamination by suitable packaging and must be sterilized after packaging.

Saccharin, Saccharinum, U. S. P. (Gluside, Benzosulfimide). —$C_7H_5O_3NS$.

White crystals or powder, nearly odorless. In dilute aqueous solutions 300 to 500 times as sweet as sucrose. Slightly soluble in water (1 in 290), sparingly soluble in alcohol (1 in 31) and readily dissolved by ammonia water or by solutions of alkali hydroxides, and alkali bicarbonate.

ACTION AND USES: Sweetening agent in diabetes mellitus; 300 to 500 times as sweet as sugar weight for weight.

DOSAGE: As a sweetening agent, about 1 to 10,000 (0.1 Gm. to 1 liter); or 30 mg. in place of an ordinary "lump" of sucrose.

Saccharin Sodium, Saccharinum Sodicum, U. S. P. (Soluble Saccharin, Soluble Gluside, Sodium Benzosulfimide).

Colorless crystals or white powder, odorless or nearly so with an intensely sweet taste. Freely soluble in water (1 in 1.5) and soluble in alcohol (1 in 50).

ACTION AND USES: Those of saccharin but having the advantage of ready solubility.

DOSAGE: As a sweetening agent about 1 in 10,000 (0.1 Gm. per liter, or 30 mg. in place of an ordinary "lump" of sucrose.

Saccharin Sodium Tablets, Tabellae Saccharini Sodici, U. S. P. (Soluble Saccharin Tablets).—The usual sizes contain 15 mg., 30 mg. and 60 mg. One 60 mg. tablet has approximately the sweetening power of 30 Gm. sucrose (U. S. P.).

Salicin, Salicinum, N. F.

Colorless crystals or white powder, odorless and having a very bitter taste.

ACTION AND USES: Partially decomposed in the stomach and intestines and finally oxidized in the body into salicylic acid. Less irritant to the mucous membranes than the salicylates but less certain in its action and has been superseded by them.

DOSAGE: 1 Gm. (N. F.).

Salicylic Acid, Acidum Salicylicum, U. S. P. (Orthohydroxybenzoic Acid).—$C_6H_4OH.COOH$.

A white powder or crystals, odorless and tasting first sweet, subsequently acrid. Slightly soluble in water (1 in 460), freely soluble in alcohol (1 in 3) and in ether (1 in 3). Incompatible with solutions of iron and with nitrous ether spirit.

ACTION AND USES: Antirheumatic, antiseptic, germicide and keratolytic.

DOSAGE: Internally it is best given in the form of soluble salicylates (see Sodium Salicylate). Externally in 2 to 5 per cent ointment or as a dusting powder (antiseptic, antiparasitic) and up to 20 per cent as a keratolytic.

Salicylic Collodion, Collodium Salicylicum, N. F.—Salicylic acid (10 per cent and flexible collodion.

USES: For softening corns.

Sage, Salvia, N. F. (Garden-Sage).—Dried leaf.

ACTION AND USES: Bitter aromatic used as condiment and formerly used in domestic herb teas; no definite therapeutic indications.

DOSAGE: 4 Gm. (N. F.).

Sanguinaria, Sanguinaria, N. F. (Bloodroot).—Rhizome.

ACTION AND USES: Irritant; unreliable expectorant in small doses and nauseant in large doses. These may produce serious secondary symptoms.

DOSAGE: 0.125 Gm. (N. F.).

Santal Oil, Oleum Santali, N. F. (Sandalwood Oil).—A volatile oil. Soluble (1 in 5) in 70 per cent alcohol.

ACTION AND USES: Urinary disinfectant and stimulant of doubtful value. Formerly used in subacute stages of cystitis and gonorrhea.

DOSAGE: 0.5 cc. (N. F.), preferably in capsules.

Santonin, Santoninum, N. F.—Anhydride of santoninic acid. Colorless crystals or powder, becoming yellow on exposure to light, odorless, at first nearly tasteless, afterward becoming bitter.

ACTION AND USES: Used for its poisonous action on intestinal parasites, especially the ascarides. When a toxic dose is absorbed it produces yellow vision and epileptiform convulsions. Finely powdered santonin should not be used because it is absorbed too readily.

DOSAGE: 60 mg. (N. F.)., in powder or capsules.

Santonin and Mild Mercurous Chloride Tablets, Tabellae Santonini et Hydrargyri Chloridi Mitis, N. F. (Santonin and Calomel Tablets).

ACTION AND USES: Irrational combination, anthelmintic and cathartic, the latter component of which is based on the traditional erroneous use of calomel as a choleretic in the belief that bile increases the action of santonin. A more dependable cathartic such as magnesium sulfate is considered preferable.

DOSAGE: 60 mg. santonin; 12 mg. mild mercurous chloride (N. F.).

Santonin Tablets, Tabellae Santonini, N. F.

DOSAGE: 60 mg. santonin (N. F.), usually available in tablets containing 30 and 60 mg.

Sarsaparilla, Sarsaparilla, U. S. P.

ACTION AND USES: Formerly used in chronic rheumatism, skin diseases and syphilis; inefficient and therefore harmful.

Sarsaparilla Fluidextract, Fluidextractum Sarsaparillae, U. S. P.—Sarsaparilla (100 per cent). Alcoholic content about 40 per cent.

DOSAGE: 2 cc.

Compound Sarsaparilla Syrup, Syrupus Sarsaparillae Compositus, U. S. P.—Sarsaparilla fluidextract (20 per cent), glycyrrhiza fluidextract, sassafras oil, anise oil, methyl salicylate and alcohol in syrup. Alcoholic content about 10 per cent.

USES: Used mainly as a flavoring vehicle for potassium iodide. It has no therapeutic value.

DOSAGE: 15 cc.

Sassafras, Sassafras, N. F.—Bark of the root

ACTION AND USES: Mild aromatic, carminative and flavoring agent. DOSAGE: 10 Gm. (N. F.).

Sassafras Oil, Oleum Sassafras, U. S. P.—A volatile oil. Soluble (1 in 2) in 90 per cent alcohol.

ACTION AND USES: Flavor; used externally as rubefacient counterirritant.

DOSAGE: 0.1 cc.

Scarlet Fever Streptococcus Antitoxin, Antitoxinum Scarlatinae Streptococcicum, U. S. P. (Scarlet Fever Antitoxin).—A sterile aqueous solution of antitoxic substances obtained from the blood serum or plasma of a healthy animal immunized against scarlet fever toxin: potency of not less than 400 antitoxic units per cubic centimeter.

ACTION AND USES: Used to distinguish the rash of scarlet fever from other rashes, by the local reaction; probably induces temporary immunity to scarlet fever and may influence the course of the disease favorably.

DOSAGE: By parenteral injection: diagnostic, intracutaneous into erythematous eruption, not to exceed 0.2 cc.; therapeutic, 6,000 units, and prophylactic, 2,000 units (U. S. P.).

Scarlet Fever Streptococcus Toxin, Toxinum Scarlatinae Streptococcicum, U. S. P. (Dick Test Toxin).—A sterile solution in a medium containing not more than 1 per cent of peptone but no meat extractive of certain products including a soluble toxin of the growth of suitable strains of hemolytic streptococci.

ACTION AND USES: Used in the Dick test to determine susceptibility to scarlet fever; also for active immunization.

DOSAGE: For determining susceptibility (Dick Test): Inject intracutaneously 0.1 cc. of the dilution, representing 1 skin test dose. Prophylactic injection for active immunization: graded hypodermic doses to be given at proper intervals until a negative Dick test is obtained. (U. S. P.)

Scarlet Red, Rubrum Scarlatinum, N. F. (Scarlet Red Medicinal, Biebrich Scarlet Red).—An azo dye.

Dark, brownish red, odorless powder. Practically insoluble in water and slightly soluble in alcohol, acetone or benzene; soluble in oils, fats, phenol, chloroform and warm petrolatum.

ACTION AND USES: Stimulates proliferation of epithelial cells; used for burns, wounds and chronic ulcers; in the latter good local circulation is essential. Value uncertain.

Scarlet Red Ointment, Unguentum Rubri Scarlatini, N. F.—Scarlet red (5 per cent) in olive oil, wool fat and petrolatum.

USES: Should be alternated with a bland ointment to avoid irritation.

Scopolamine Hydrobromide, Scopolaminae Hydrobromidum, U. S. P. (Hyoscine Hydrobromide).—The hydrobromide of levorotatory scopolamine. *Caution: Scopolamine hydrobromide is extremely poisonous. (U. S. P.)*

Colorless, odorless, transparent crystals. Freely soluble in water (1 in 1.5) and soluble in alcohol (1 in 20).

ACTION AND USES: Closely resembling those of atropine in its influence on the nerve endings but having a sedative effect on the brain. Used as a somnifacient in motor excitement and mania, but much less than formerly; as a preliminary to anesthesia and in "twilight sleep," in which it is dangerous unless used with great caution, because of its tendency to depress the respiratory center; as a preservative or remedy for "motion sickness"; also used locally as a mydriatic. Uncertain in its action, at times producing acute delirium.

DOSAGE: 0.5 mg. (U. S. P.).

Scopolamine Hydrobromide Tablets, Tabellae Scopolaminae Hydrobromidi, N. F. (Hyoscine Hydrobromide Tablets).

Senega, Senega, N. F. (Seneca Snakeroot).

ACTION AND USES: Nauseant expectorant (by its irritant saponin).

DOSAGE: 1 Gm. (N. F.).

Senega Fluidextract, Fluidextractum Senegae, N. F. (Fluidextract of Seneca-Snakeroot).—Senega (100 per cent). Alcoholic content about 47 per cent.

DOSAGE: 1 cc. (N. F.).

Senega Syrup, Syrupus Senegae, N. F.—Senega fluidextract (20 per cent), diluted solution of ammonia in syrup. Alcoholic content about 9.5 per cent.

DOSAGE: 4 cc. (N. F.).

Senna, Senna, U. S. P. (Senna Leaves).

ACTION AND USES: Efficient cathartic of anthraquinone series.

DOSAGE: 2 Gm. (U. S. P.).

Senna Fluidextract, Fluidextractum Sennae, U. S. P.—Senna (100%). Alcoholic content about 25 per cent.

DOSAGE: 2 cc. (U. S. P.).

Compound Senna Powder, Pulvis Sennae Compositus, N. F. (Compound Licorice Powder).—Senna (18 per cent), washed sulfur (8 per cent) with glycyrrhiza (23.6 per cent), oil of fennel (0.4 per cent), and sucrose (50 per cent or 47 per cent with 3 per cent starch).

DOSAGE: 4 Gm. (N. F.).

Senna Syrup, Syrupus Sennae, U. S. P.—Senna fluidextract (25%) and coriander oil in sucrose and water. Alcoholic content about 6 per cent.

DOSAGE: 8 cc. (U. S. P.).

Serenoa, Serenoa, N. F. (Saw Palmetto Berries, Sabal N. F. VI).—The partially dried ripe fruit.

ACTION AND USES: Exploited as a stimulant of the mucous membrane of the genitourinary tract. Of very doubtful value.

DOSAGE: 1 Gm. (N. F.).

Compound Serenoa and Sandalwood Elixir, Elixir Serenoae et Santali Compositum, N. F. (Compound Elixir of Saw Palmetto and Santal, Sabal-Santal Elixir).— Serenoa fluidextract (25 per cent), zea fluidextract (25 per cent) and santal oil (0.2 per cent) in glycerin, alcohol and distilled water flavored with compound orange spirit. Alcoholic content about 40 per cent.

USES: A complex mixture for which it is difficult to assign any rational indications.

DOSAGE: 4 cc. (N. F.).

Serenoa Fluidextract, Fluidextractum Serenoae, N. F. (Saw Palmetto Berries Fluidextract).—Sabal (100 per cent). Alcoholic content about 65 per cent.

DOSAGE: 1 cc. (N. F.).

Serpentaria, Serpentaria, N. F.—Rhizone and root.

ACTION AND USES: Bitter with no advantage over gentian.

DOSAGE: 1 Gm. (N. F.).

Antimeningococcic Serum, Serum Antimeningococcicum, N. F. (Antimeningococcus Serum, Meningococcus Serum, Meningitis Serum).—Obtained from the blood of an animal with cultures of several types of meningococci.

ACTION AND USES: Used in the treatment of meningitis; there is much doubt as to its value.

DOSAGE: Therapeutic by parenteral injection, 20 cc. (N. F.).

Antipneumococcic Serum—Type Specific, Serum Antipneumococcicum, N. F. (Antipneumococcus Serum, Pneumonia Serum).—Antipneumococcic serum is obtained from the blood of an animal which has been immunized with cultures of a pneumococcus (Diplococcus pneumoniae) of one of the types for which a serum has been prepared and which has been standardized or is released by the National Institute of Health. The outside label must bear the name Antipneumococcic Serum, the specific type or types of pneumococcus represented and the genus of animal employed.

ACTION AND USES: Used as early as possible in the treatment of lobar pneumonia. The diagnosis (typing of organisms) determines which type of serum is to be administered. The use of a specific serum has largely superseded the practice of administering combined serum of more than one of the common types. However, in many cases a sulfonamide compound and penicillin have replaced the use of serum. Other procedures should not be neglected when indicated.

DOSAGE: Therapeutic, by parenteral injection, from 20,000 to 100,000 units (N. F.). *Caution: Type XIV antipneumococcic serum produced by immunization of the horse should not be administered to persons of blood group "A." (N. F.)*

Human Measles Immune Serum, Serum Immune Morbillosi Humanum, N. F. (Measles Convalescent Serum).—Sterile serum obtained from the blood of a healthy human being who survived an attack of measles. Human measles immune serum complies with the requirements of the National Institute of Health of the United States Public Health Service.

Human measles immune serum must be free from harmful substances detectable by animal inoculation and must not contain

an excessive proportion of preservative (not more than 0.5 per cent phenol or 0.4 per cent cresol, if either of these is used).

ACTION AND USES: It is administered during the incubation period to prevent or modify an expected attack of measles. Its value as a specific treatment is not established.

DOSAGE: Parenteral, therapeutic 20 cc. and prophylactic 10 cc.

Human Scarlet Fever Immune Serum, Serum Immune Scarlatinae Humanum, N. F. (Scarlet Fever Convalescent Serum).—Sterile serum obtained from the blood of a healthy human being who has survived an attack of scarlet fever. Human scarlet fever immune serum complies with the requirements of the National Institute of Health of the United States Public Health Service.

Human scarlet fever immune serum must be free from harmful substances detectable by animal inoculation and must not contain an excessive proportion of preservative (not more than 0.5 per cent phenol or 0.4 per cent cresol, if either of these is used).

ACTION AND USES: It is of value in transferring passive immunity to a patient exposed to scarlet fever. Its value in treatment of active cases is not established and has been superceded by penicillin.

DOSAGE: Parenteral, therapeutic 20 cc. and prophylactic 10 cc. (N. F.).

Normal Human Serum, Serum Humanum Normale, U. S. P.—The sterile serum obtained by pooling approximately equal amounts of the liquid portion of coagulated whole blood from eight or more persons. Normal human serum complies with the requirements of the National Institute of Health of the United States Public Health Service.

Normal human serum may be dispensed as liquid serum or in a dried condition. It must be free of harmful substances detectable by animal inoculation and must not contain an excessive amount of preservative.

ACTION AND USES: It is used in the treatment of surgical and traumatic shock, in the treatment of burns and as a temporary substitute for whole blood in the treatment of hemorrhage.

DOSAGE: Intravenous, 500 cc. (U. S. P.).

Sesame Oil, Oleum Sesami, N. F.—A fixed oil.

ACTION AND USES: Emollient, used as substitute for olive oil.

Sherry Wine, Vinum Xericum, N. F.—Contains about 20.5 per cent by volume of alcohol.

Pale yellowish brown or amber-colored liquid.

ACTION AND USES: Used in the preparation of the official Beef, Iron and Wine N. F. of which it constitutes the major component. It is without specific medicinal value and subject to misuse as a beverage.

Purified Siliceous Earth, Terra Silicea Purificata, U. S. P. (Purified Kieselguhr, Purified Infusorial Earth).—Silica (SiO_2).

Fine, bulky, white or nearly white, odorless, tasteless powder. Insoluble in water, acids or dilute solutions of the alkalies.

ACTION AND USES: Used as a clarifying agent in pharmacy.

Surgical Silk, Chorda Serica Chirurgicalis, U. S. P. (Silk Sutures).—Consists of the thread prepared from the cocoon filaments of glutinous gum which are secreted or spun by the mulberry silkworm. The strands may be processed to form threads of various diameters by braiding or twisting or a combination of both.

Note: Surgical Silk may be sterilized by exposing the strands to saturated steam at 15 pounds pressure (121.5 C.) for thirty minutes. (U. S. P.).

Surgical Silk may be white or colored. *White* Surgical Silk consists of degummed silk which has not been subjected to any bleaching process. *Colored* Surgical Silk consists of degummed silk which has been "iron dyed" or dyed with a harmless vegetable dye, or a certified coal tar color. All uncombined dye shall be removed from the material, so that the dyed suture will not bleed into the tissue.

Surgical Silk may consist of pure silk which is capillary, known as Type A, *Untreated or Capillary:* or it may consist of pure silk which has been treated to reduce its capillarity, known as Type B, *Treated or Non-Capillary.*

Sterile Surgical Silk, Chorda Serica Chirurgicalis Sterilis, U. S. P. (Sterile Silk Sutures).—Surgical silk which has been rendered sterile and protected from contamination by suitable packaging.

Colloidal Silver Chloride, Argenti Chloridum Colloidale, N. F.—Silver chloride rendered colloidal by the presence of sucrose or other suitable stabilizing agent, containing about 10 per cent silver chloride.

A white granular powder which is odorless, hygroscopic and affected by light. It has a sweet, metallic taste. Freely dispersible in distilled water.

ACTION AND USES: A dry powder containing 10 per cent of colloidally dispersed silver chloride used in the preparation of a stable 100 per cent solution (Lunosol Liquid, N. N. R.) for dilution and topical application as a mild, nonirritant antiseptic to the skin and accessible mucous membranes. Ointments containing 10 per cent of the liquid concentrate (equivalent to 1 per cent silver chloride) may also be employed externally. It does not stain the skin; argyria may follow its continued use.

DOSAGE: The 100 per cent solution is usually diluted with 9 to 3 parts of water in ophthalmia neonatorum and in other inflammatory infections of the eye, ear, nose and throat or of the skin; dilutions of 19 to 3 parts of water may be used for urethral injection.

Colloidal Silver Iodide, Argenti Iodium Colloidale, N. F. (Neo-Silvol).—Silver iodide rendered colloidally stable with gelatin, containing about 20 per cent silver iodide.

Caution: Solutions of colloidal silver iodide should be freshly prepared and should be dispensed in amber-colored bottles.

Light sensitive, weak yellow to pale yellow granular solid with a faint odor. Freely soluble in water to form a milky opalescent suspension.

ACTION AND USES: A gelatinized granular solid containing 20 per cent colloidally stable silver iodide employed in solution or ointment as a nonirritant antiseptic for topical application against infections of the skin and accessible mucous membranes. Its continued use may produce argyria, but it does not stain the skin on topical application.

DOSAGE: Solutions of from 5 to 50 per cent are used for application to the skin, the eye, ear and mucous membranes of the nose, throat and genitourinary tract, depending on the site and the severity of inflammatory infection. Hot water is required to dissolve concentrations of 25 per cent or over. Solutions tend to precipitate after standing longer than one week. Local anesthetics should not be added. Ointments containing 5 per cent are applied externally or intravaginally in the form of suppositories.

Silver Nitrate, Argenti Nitras, U. S. P.—$AgNO_3$.

Colorless or white crystals, darkening on exposure to light in the presence of organic matter; odorless; strongly caustic and having a bitter, metallic taste. Very soluble in water (1 in 0.4) and soluble in alcohol (1 in 30). Incompatible especially with chlorides and organic matter.

ACTION AND USES: Externally as a caustic, antiseptic and germicide; internally as an astringent. In using any silver preparation the danger of argyria should be kept in mind.

DOSAGE: 0.01 Gm., diluted or in kaolin pills but its internal use is of doubtful value and may be followed by deposition of silver in the skin (argyria) which generally cannot be removed. The concentrations of solutions for local use vary from 0.01 to 10 per cent according to the sensitiveness of the surface and the degree of action desired. Distilled water should be used in making the solutions.

Ammoniacal Silver Nitrate Solution, Liquor Argenti Nitratis Ammoniacalis, N. F. (Ammoniacal Silver Nitrate, Howe).—An aqueous solution of silver diammino nitrate, containing in each 100 Gm. the equivalent of about 29 Gm. silver and about 9.5 Gm. ammonia. Silver nitrate (70.4 Gm.), distilled water (24.5 cc.) and strong ammonia solution (68.0 cc.) to make about 100 cc.

Clear, colorless, almost odorless liquid.

DOSAGE: For oral application mix ammoniacal silver nitrate solution with a reducing agent, such as 10 per cent formaldehyde or eugenol, so as to deposit the metallic silver in the infected area in a state of fine subdivision. (N. F.)

Toughened Silver Nitrate, Argenti Nitras Induratus, U. S. P. (Fused Silver Nitrate, Moulded Silver Nitrate, Lunar Caustic, Silver Nitrate Pencils).—$AgNO_3$ toughened by the addition of a small proportion of silver chloride.

White, hard pencils or cones.

Mild Silver Protein, Argentum Proteinicum Mite, U. S. P. (Mild Protargin).—Contains about 20 per cent silver.

Dark brown or almost black shining scales or granules; odorless and frequently hygroscopic; freely soluble in water but almost insoluble in alcohol, in chloroform and in ether.

ACTION AND USES: Mild Silver Protein is demulcent and protective and only slightly irritant unless the solutions are decomposed by long standing. In using any silver preparation the danger of argyria should be kept in mind.

DOSAGE: It is used on mucous membranes in solution varying in concentration from 1 in 2 to 1 in 20. It may be used in ointment or suppository in the same concentration as the aqueous solution. The stains on linen may be removed with a solution of mercuric chloride 1 in 1,000. *Caution: Solutions of Mild Protein Silver should be freshly prepared and should be dispensed in amber-colored bottles. (U. S. P.)*

Strong Protein Silver, Argentum Proteinicum Forte, N. F. (Strong Silver Protein, Strong Protargin).—Contains about 8 per cent of silver.

A brown, odorless powder; freely soluble in water but almost insoluble in alcohol, in chloroform and in ether.

ACTION AND USES: Although it contains less silver than the mild protein silver, it is more actively germicidal and irritant. Its therapeutic action is intermediate between that of silver nitrate and mild protein silver. In using any silver preparation the danger of argyria should be kept in mind.

DOSAGE: It is used on mucous membranes in solution varying in concentration from 1 in 10 to 1 in 1,000. It may be used in ointment or suppository in the same concentration as the aqueous solution. The stains on linen may be removed with a solution of mercuric chloride 1 in 1,000. *Caution: Solutions of strong protein silver should be freshly prepared and should be dispensed in amber-colored bottles. (N. F.)*

Smallpox Vaccine, Vaccinum Variolae, U. S. P.—Consists of a glycerinated suspension of the vesicles of vaccinia or cowpox which have been obtained from healthy vaccinated cattle. The product must comply with the requirements established by the National Institute of Health of the United States Public Health Service.

Note: It must be kept at a very low temperature, preferably below 0 C., and never above 5 C. as it loses potency rapidly at higher, even moderate temperatures. (U. S. P.)

USES: Prophylactic vaccination against smallpox.

Hard Soap, Sapo Durus, U. S. P. (Soap).—Soda Soap.

A white or whitish solid or powder having a faint, peculiar odor and an alkaline taste. Soluble in water and alcohol.

ACTION AND USES: Used chiefly as a detergent and in solution as a vehicle for liniments. An ingredient of pills containing resinous drugs like aloe and ipomea.

Camphor and Soap Liniment, Linimentum Camphorae et Saponis, U. S. P. (Soap Liniment).—Hard soap (6 per cent), camphor (4.5 per cent) in rosemary oil, alcohol and water. Alcoholic content about 64 per cent.

USES: Mild rubefacient and vehicle for more active liniments.

Solid Soap Liniment, Linimentum Saponis Spissum N. F. (Solid Opodeldoc, Camphorated Soap Liniment).—Camphor (2.5 per cent) dilute ammonia solution, stearic acid, monohydrated sodium carbonate, thyme oil, rosemary oil, alcohol and water. Alcoholic content about 72 per cent.

Medicinal Soft Soap, Sapo Mollis Medicinalis, U. S. P. (Soft Soap, Green Soap).—Prepared from vegetable oil, oleic acid, glycerin and potassium hydroxide.

A soft, unctuous; yellowish white to brownish yellow translucent mass having a slight, characteristic odor and an alkaline taste.

ACTION AND USES: Dissolved in diluted alcohol, is employed in the preparation of various liniments and is a detergent.

Soft Soap Liniment, Linimentum Saponis Mollis, U. S. P. (Green Soap Tincture).—Medicinal soft soap (65 per cent) and lavender oil in alcohol. Alcoholic content about 30 per cent.

Compound Soft Soap Liniment, Linimentum Saponis Mollis Compositum, N. F. (Compound Green Soap Tincture).—Medicinal soft soap (15 per cent), juniper tar (2 per cent) and alcohol. Alcoholic content about 77 per cent.

Soda Lime, Calx Sodica, U. S. P.—Soda lime for use in metabolism, anesthesia and oxygen therapy contains calcium hydroxide and sodium or potassium hydroxide or both in granular form.

Soda lime is available in two forms, *low-moisture* which contains less than 9 per cent moisture and *high-moisture* which contains not less than 9 per cent and not more than 19 per cent moisture.

Soda lime may contain an indicator which is inert with respect to its reactivity with ether, nitrous oxide, ethylene and cyclopropane and which changes color when the absorption capacity of the soda lime for carbon dioxide is exhausted. When present, the nature and color change of the indicator must be stated on the label of the container.

White or grayish white, or if an indicator is added may have a color.

Sodium Acetate, Sodii Acetas, N. F.—$NaC_2H_3O_2.3H_2O$.

Colorless crystals or granular powder, odorless or nearly odorless and having a cooling, saline taste. Very soluble in water (1 in 0.8) and soluble in alcohol (1 in 19).

ACTION AND USES: Practically identical with those of potassium acetate.

DOSAGE: 1.5 Gm. (N. F.)

Sodium Alginate, Sodii Alginas, N. F. (Algin).—Purified extract from giant brown seaweeds.

Nearly odorless and tasteless, coarse or fine powder, yellowish white. Dissolves in water to form a viscous, colloidal solution. Insoluble in alcohol and in aqueous alcohol above about 30 per cent in strength.

ACTION AND USES: Used chiefly as a pharmaceutic and cosmetic aid to impart viscosity to lotions and for the preparation of stable gels and creams. It is also used in place of tragacanth as a suspending and binding agent. Its presence requires preservation with an agent such as a parahydroxybenzoate ester but is compatible with glycols, glycerin, most wetting agents and alkalies. Its colloidal solutions are precipitated by acid reactions of *p*H 3 or lower.

Exsiccated Sodium Arsenate, Sodii Arsenas Exsiccatus, N. F. (Dried Sodium Arsenate).—Na_2HAsO_4.

White, odorless, amorphous powder. Freely soluble in water (1 in 3.5) but only slightly soluble in alcohol. *Caution: Exsiccated sodium arsenate is very poisonous. (N. F.)*

DOSAGE: 3 mg. (N. F.).

Sodium Arsenate Solution, Liquor Sodii Arsenatis, N. F.—Exsiccated sodium arsenate (about 1 per cent) in water.

USES: No advantage over other arsenicals.

DOSAGE: 0.2 cc. (N. F.).

Sodium Ascorbate Injection, Injectio Sodii Ascorbatis, U. S. P.—Sterile solution of sodium ascorbate in water for injection. It contains not less than 95 per cent of the labeled amount of ascorbic acid.

ACTION AND USES: Used for the parenteral administration of ascorbic acid, by which route it is the preferable form of the acid.

DOSAGE: 0.1 Gm. ascorbic acid (U. S. P.), usually available in ampuls containing amounts of the sodium salt equivalent to the acid as 0.1 Gm. or 0.5 Gm. in 2 cc., 0.5 Gm. or 1 Gm. in 5 cc. and 0.5 Gm. in 10 cc. The official dose represents about one-fourth more than the recommended daily allowance for adult men.

Sodium Benzoate, Sodii Benzoas, U. S. P.—$Na(C_6H_5COO)$.

White, odorless, sweet powder. Freely soluble in water (1 in 2) and sparingly soluble in alcohol (1 in 50). Incompatible with mineral acids and ferric salts.

ACTION AND USES: Has the action of benzoic acid but is less irritating. Mild antiseptic, practically nontoxic.

DOSAGE: 1 Gm.

Sodium Bicarbonate, Sodii Bicarbonas, U. S. P. (Baking Soda).—$NaHCO_3$.

A white, odorless powder having a cooling, mildly alkaline taste. Decomposed by acids and converted by boiling into the normal carbonate. Freely soluble in water (1 in 10) and insoluble in alcohol.

ACTION AND USES: Used as a mild alkali in conditions of acidosis and to neutralize the acid of the gastric juice in hyperacidity and gastric ulcer. May be administered intravenously in cases of extreme acidosis. Applied externally as a mild alkaline wash.

DOSAGE: 2 Gm. (U. S. P.). For intravenous injection a 6 per cent solution sterilized by boiling and thus partly converted into the normal carbonate has been recommended. One thousand cc. of such a solution, which has been cooled and through which carbon dioxide has been passed, may be injected, but great care must be taken that none of the liquid gets outside the veins lest necrosis of the tissues occur.

Soda and Mint Solution, Liquor Sodae et Menthae, N. F. (Mistura Sodae et Menthae, Soda Mint).—Sodium bicarbonate (5 per cent), aromatic ammonia spirit (2 per cent) and spearmint water.

USES: Antacid and carminative.

DOSAGE: 8 cc. (N. F.)

Sodium Bicarbonate and Calcium Carbonate Powder, Pulvis Sodii Bicarbonatis et Calcii Carbonatis, N. F. (Sippy Powder No. 1).—Contains a mixture of precipitated calcium carbonate and sodium bicarbonate in the proportion of 23:77, a ratio of approximately 1:3.35.

ACTION AND USES: Gastric antacid powder that represents a modification of the original Sippy Powder II (bismuth subcarbonate 0.6 Gm. and sodium bicarbonate 2 to 3 Gm.) for which calcium carbonate is substituted for bismuth subcarbonate and the proportions are essentially reversed. Because calcium salts tend to constipate, the powder is used alternately with the other Sippy powder containing magnesium oxide.

DOSAGE: 2.6 Gm. (N. F.). This dose provides about 0.6 Gm. calcium carbonate and 2.0 Gm. sodium bicarbonate.

Sodium Bicarbonate and Calcium Carbonate Tablets, Tabellae Sodii Bicarbonatis et Calcii Carbonatis, N. F. (Sippy Powder Tablets No. 1.)

DOSAGE: 2.6 Gm. Sodium Bicarbonate and Calcium Carbonate Powder (N. F.)

Sodium Bicarbonate and Magnesium Oxide Powder, Pulvis Sodii Bicarbonatis et Magnesii Oxidi, N. F. (Sippy Powder No. 2).—Contains a mixture of equal parts of magnesium oxide and sodium bicarbonate.

ACTION AND USES: Gastric antacid for alternate use with the other Sippy powder. It represents the original Sippy powder I (magnesium oxide 0.6 Gm. and sodium bicarbonate 0.6 Gm.), the magnesium content of which tends to counteract the constipating effect of the powder containing calcium.

DOSAGE: 1.3 Gm. (N. F.). This dose provides about 0.6 Gm. each of magnesium oxide and sodium bicarbonate.

Sodium Bicarbonate and Magnesium Oxide Tablets, Tabellae Sodii Bicarbonatis et Magnesii Oxidi, N. F. (Sippy Powder Tablets No. 2).

DOSAGE: 1.3 Gm. Sodium Bicarbonate and Magnesium Oxide Powder (N. F.).

Sodium Bicarbonate Tablets, Tabellae Sodii Bicarbonatis, N. F.

USES: For gastric hyperacidity.

DOSAGE: 1 Gm. sodium bicarbonate (N. F.).

Sodium Biphosphate, Sodii Biphosphas, U. S. P. (Sodium Dihydrogen Phosphate, Monosodium Orthophosphate, Sodium Acid Phosphate).

Colorless, transparent crystals or a white granular powder; odorless and slightly deliquescent; freely soluble in water and practically insoluble in alcohol, chloroform and ether.

ACTION AND USES: It renders the urine acid or increases its acidity; hence it is used to develop the antiseptic action of methenamine in the bladder. It should be given sufficiently in advance of methenamine to permit its leaving the stomach before the latter drug is administered.

DOSAGE: 0.6 Gm. (U. S. P.).

Sodium Borate, Sodii Boras, U. S. P. (Borax, Sodium Tetraborate).—$Na_2B_4O_7.10H_2O$.

Colorless crystals or white powder, odorless and having a sweetish, alkaline taste. Soluble in water (1 in 16) and insoluble in alcohol.

ACTION AND USES: Antiseptic, detergent and alkaline. Used in solution as a wash for the skin and mucous membranes. Should not be used internally.

Compound Sodium Borate Solution, Liquor Sodii Boratis Compositus, N. F. (Dobell's Solution).—Sodium borate and and sodium bicarbonate (each 1.5 per cent) and liquefied phenol (0.3 per cent) in glycerin and water.

USES: Mild antiseptic. For use on mucous membranes; undiluted; or, for the dental spray bottle, dilute with 5 volumes of water (N. F.).

Sodium Bromide, Sodii Bromidum, U. S. P.—NaBr.

White, odorless crystals or powder having a saline taste. Freely soluble in water (1 in 1.2) and soluble in alcohol (1 in 16).

ACTION AND USES: Used as a nerve sedative and cerebral depressant. Practically identical with potassium bromide in action and uses. Symptoms of bromism should be watched for. Bromide eruption is extremely slow in disappearing.

DOSAGE: 1 Gm. (U. S. P.).

Five Bromides Elixir, Elixir Bromidorum Quinque, N. F.—One hundred cc. contains the equivalent of about 19 Gm. bromine in the form of the bromides of sodium, potassium, calcium, lithium and ammonium in flavored aromatic elixir, glycyrrhiza syrup, raspberry syrup and water. Alcoholic content about 5 per cent.

USES: There is no evidence that this preparation is superior to sodium bromide or potassium bromide.

DOSAGE: 4 cc. (N. F.).

Three Bromides Elixir, Trium Elixir Bromidorum, N. F.—Bromides of ammonium, potassium and sodium (each 8 per cent) in amaranth solution and compound benzaldehyde elixir. Alcoholic content about 4 per cent.

DOSAGE: 4 cc. (N. F.).

Sodium Bromide Elixir, Elixir Sodii Bromidi, N. F.—Sodium bromide (17.5 per cent) in syrup, water and aromatic elixir. Alcoholic content about 6 per cent.

DOSAGE: 4 cc. (N. F.).

Bromides Syrup, Syrupus Bromidorum, N. F.—Potassium bromide and sodium bromide (each 8 per cent), ammonium bromide (5 per cent), calcium bromide (2.5 per cent), lithium bromide (0.8 per cent) flavored with vanilla tincture and colored with compound cudbear tincture in compound sarsaparilla syrup, sucrose and water.

USES: This complex mixture has no advantage over a simple bromide.

DOSAGE: 4 cc. (N. F.).

Three Bromides Tablets, Tabellae Bromidorum Trium, N. F. (Triple Bromide Tablets).—Bromides of ammonium, potassium and sodium in equal proportions having total bromine content of about 75 per cent of the stated amount of total bromides.

DOSAGE: 0.3 Gm. each of ammonium bromide, potassium bromide and sodium bromide (N. F.).

Sodium Bromide Tablets, Tabellae Sodii Bromidi, N. F.

Sodium Cacodylate, Sodii Cacodylas, U. S. P.

White, odorless, deliquescent crystals or powder. Very soluble in water (1 in 0.5) and freely soluble in alcohol (1 in 2.5).

ACTION AND USES: It is slowly decomposed in the tissues into trivalent arsenic. The action is thus more gradual and less toxic than that of other arsenic compounds; but it is not easily controlled. Produces garlic-like odor of the breath. It is not efficacious in the treatment of syphilis.

DOSAGE: 60 mg. (U. S. P.).

Sodium Cacodylate Ampuls, Ampullae Sodii Cacodylatis, N. F. (Sodium Cacodylate Injection).—Sodium cacodylate in sterile aqueous solution.

DOSAGE: 0.3 Gm. sodium cacodylate (N. F.).

Monohydrated Sodium Carbonate, Sodii Carbonas Monohydratus, U. S. P.—$Na_2CO_3H_2O$.—It contains about 12 per cent water.

Colorless crystals or white granular powder; odorless and having a strongly alkaline taste. Freely soluble in water (1 in 3) and insoluble in alcohol. Incompatible with acids and acid salts and with the salts of the heavy metals and alkaloids.

ACTION AND USES: Antacid and detergent but irritant and caustic; employed in medicine chiefly in the preparation of alkaline baths.

DOSAGE: 0.25 Gm. (U. S. P.).

Sodium Chloride, Sodii Chloridum, U. S. P.—NaCl.

Colorless crystals or white powder, odorless and having a saline taste. Freely soluble in water (1 in 2.8) and only slightly soluble in alcohol.

ACTION AND USES: Used for preparing isotonic sodium chloride solution. Large oral doses in concentrated solution

are laxative. Administered in tablet form to supply sodium in the prevention or treatment of heat cramps and for the same purpose in Addison's disease.

Ringer's Solution, Liquor Ringeri, U. S. P. (Isotonic Solution of Three Chlorides, U. S. P. XII).—Contains in each 100 cc. about 0.86 Gm. of NaCl, about 30 mg. of KCl and about 33 mg. of $CaCl_2.2H_2O$.

Clear and colorless with a mild, saline taste.

ACTION AND USES: It is used to supply fluids and chlorides in proportions similar to that of the blood. *Unless otherwise specified, sterile Ringer's Solution for parenteral use must be dispensed. (U. S. P.)*

DOSAGE: By other parenteral routes.

Isotonic Sodium Chloride Solution, Liquor Sodii Chloridi Isotonicus, U. S. P. (Physiological Sodium Chloride Solution, Physiological Salt Solution, Normal Saline Solution.)—Sodium chloride (0.9 per cent) in water.

USES: An osmotically indifferent vehicle, used especially for intravenous injections to supply fluid.

Unless otherwise specified, sterile isotonic sodium chloride solutions for parenteral use must be dispensed. (U. S. P.)

Lactated Ringer's Solution, Liquor Ringeri Lacticus, U. S. P.—Each 100 cc. contains calcium chloride 20 mg., potassium chloride 30 mg., sodium chloride 600 mg. and sodium lactate 310 mg., in sterile distilled water.

ACTION AND USES: Chiefly used as an isotonic parenteral fluid to help maintain buffer balances and to supply mineral needs of the body. Modifications of the official formula have been employed that include the addition of 20 mg. magnesium chloride and/or 30 mg. sodium bicarbonate per hundred cubic centimeters of solution.

DOSAGE: Injected by all parenteral routes of administration in quantities determined according to the loss of cations present in the solution and the extracellular body fluid.

Sodium Chloride and Dextrose Tablets, Tabellae Sodii Chloridi et Dextrosi, N. F.

ACTION AND USES: An oral preparation of equal parts of sodium chloride and dextrose in which the latter serves no useful purpose other than as a sweetening agent or vehicle for the sodium chloride component used in the prevention or treatment of sodium deficiency. The dextrose component is not adequate to contribute significantly to caloric needs.

DOSAGE: Usually available in tablets containing either 0.2 or 0.45 Gm. each of sodium chloride and dextrose. More than twice as many such tablets are required to supply an equivalent amount of sodium chloride prescribed as sodium chloride tablets.

Sodium Chloride Tablets, Tabellae Sodii Chloridi, N. F.

ACTION AND USES: Used orally to correct sodium deficit due either to excessive perspiration and ingestion of water in heat exhaustion

or to adrenal cortical insufficiency in Addison's disease. The addition of 0.5 per cent sodium chloride to drinking water is the most rational means of preventing symptoms of heat exhaustion.

DOSAGE: 5 Gm. daily has been recommended to replace losses due to excessive perspiration; 10 to 20 Gm. daily is given in adrenal cortical insufficiency.

Sodium Citrate, Sodii Citras, U. S. P.—$Na_3C_6H_5O_7.2H_2O$.—It contains about 11.5 per cent water.

White, odorless granular powder or small crystals, having a cooling saline taste. Freely soluble in water (1 in 1.5), insoluble in alcohol.

ACTION AND USES: Similar to those of potassium citrate.

DOSAGE: 1 Gm. (U. S. P.).

Sodium Citrate Solution, Liquor Sodii Citratis, N. F. (Mistura Sodii Citratis, Potio Riverii).—Citric acid and Sodium Bicarbonate in distilled water.

DOSAGE: 15 cc. (N. F.)

Anticoagulant Sodium Citrate Solution, Liquor Sodii Citratis Anticoagulans, U. S. P.—A solution of sodium citrate in isotonic sodium chloride solution containing in each 100 cc. about 2.5 Gm. sodium citrate ($Na_3C_6H_5O_7.2H_2O$), and about 0.9 Gm. sodium chloride (NaCl), including all tolerances.

ACTION AND USES: Used in the transfusion of blood.

Unless otherwise specified, sterile anticoagulant sodium citrate solution for parenteral use must be dispensed. (U. S. P.)

Anticoagulant Acid Citrate Dextrose Solution, Liquor Acidi Citratis Dextrosi Anticoagulans, U. S. P. (A. C. D. Solution).—A sterile solution containing in each 100 cc. sodium citrate 2.2 Gm., citric acid 0.8 Gm. and dextrose 2.45 Gm. in distilled water for injection.

ACTION AND USES: Anticoagulant solution used for the preservation of blood to be stored prior to administration by indirect transfusion. The component dextrose has been shown to retard hemolysis and prolong in vivo survival of erythrocytes after transfusion when blood mixed with proper proportions of the solution is stored at 4 to 10 C. for periods up to thirty days. Citric acid lowers the *p*H of the solution sufficiently to prevent caramelization during sterilization.

DOSAGE: 1 part solution to 4 parts blood is considered adequate to prevent coagulation and to preserve it for subsequent transfusion.

Sodium Glycerophosphate, Sodii Glycerophosphas, N. F.—Represents about 71 per cent of the anhydrous salt.

White, odorless plates, scales or powder having a saline taste. Freely soluble in water but practically insoluble in alcohol.

ACTION AND USES: Was recommended as a nerve tonic in all kinds of wasting and nervous diseases. The evidence indicates that the claims are unfounded.

DOSAGE: 0.25 Gm. (N. F.).

Compound Glycerophosphates Elixir, Elixir Glycerophosphatum Compositum, N. F. (Compound Glycerophosphates Solution).—Sodium glycerophosphate (3.5 per cent), calcium glycerophosphate (1.6 per cent), ferric glycerophosphate (0.3 per cent), soluble manganese glycerophosphate (0.2 per cent), quinine hydrochloride (0.0875 per cent), strychnine nitrate (0.0125 per cent), citric acid (0.06 per cent), lactic acid (2 per cent) and compound cardamom spirit in alcohol, glycerin and distilled water. Alcoholic content about 11 per cent.

USES: A highly complex, irrational, preparation of the inactive glycerophosphates with quinine and strychnine.

DOSAGE: 8 cc. (N. F.).

Sodium Hydroxide, Sodii Hydroxidum, U. S. P. (Caustic Soda).—Contains not less than 95 per cent NaOH. *Caution: Great care is necessary in handling sodium hydroxide, as it rapidly destroys organic tissues. (U. S. P.)*

White, odorless masses or hard, brittle sticks. Very soluble in water (1 in 1) and freely soluble in alcohol.

ACTION AND USES: Practically identical with those of potassium hydroxide; both are employed as laboratory reagents.

Sodium Hypochlorite, Sodii Hypochloritis.

ACTION AND USES: Hypochlorites in acid, alkaline and neutral solutions were used in the treatment of infected wounds but have been largely displaced by the antibiotic agents. Sodium hypochlorite solution U. S. P. is alkaline, but it is not suitable for application to wounds. Diluted sodium hypochlorite solution N. F. is practically neutral.

Sodium Hypochlorite Solution, Liquor Sodii Hypochloritis, U. S. P.—About 5 per cent NaOCl.

ACTION AND USES: Germicide. *Caution: This solution is not suitable for application to wounds. (U. S. P.)*

Diluted Sodium Hypochlorite Solution, Liquor Sodii Hypochloritis Dilutus, N. F. (Liquor Sodae Chlorinatae Chirurgicalis, Modified Dakin's Solution).—NaOCl (about 0.48 per cent).

ACTION AND USES: It is an active germicide and antiseptic for infected wounds when used after free incision and cleansing by practically continuous irrigation, as in the Carrel technic. It dissolves necrotic tissues and thus helps to keep the wound clean. It dissolves silk ligatures and loosens catgut, and therefore it may cause secondary hemorrhage. It is practically nontoxic when used externally, but it should not be injected into the peritoneal cavity.

Sodium Hypophosphite, Sodii Hypophosphis, N. F.—$NaH_2PO_2.H_2O$. *Caution should be observed in compounding sodium hypophosphite with other substances as an explosion may occur if it is triturated or heated with nitrates, chlorates or other oxidizing agents. (N. F.)*

Colorless plates or white powder, odorless and having a saline taste. Freely soluble in water (1 in 1) and soluble in alcohol.

ACTION AND USES: The hypophosphites were prescribed as tonics, but all reliable evidence indicates that they are inert.

DOSAGE: 0.5 Gm. (N. F.)

Sodium Indigotindisulfonate, Sodii Indigotindisulfonas, N. F. (Indigo Carmine).—$C_{16}H_8N_2O_8S_2Na_2$.

Dusky purplish blue powder or blue granules with coppery luster. It is affected by light. Dissolves in water (1 in 100) and is slightly soluble in alcohol.

ACTION AND USES: Used as a microscopic stain, laboratory reagent and in sterile solution for injection as a dye-excretion test of kidney function. Following intramuscular injection, the dye normally appears in the urine within less than ten minutes, and about 10 per cent is eliminated within the first hour.

DOSAGE: Subcutaneously and intramuscularly, 50 mg.; intravenously, 8 mg. sodium indigotindisulfonate (N. F.).

Sodium Indigotindisulfonate Ampuls, Ampullae Sodii Indigotindisulfonatis, N. F. (Indigo Carmine Injection, Indigo Carmine Ampuls).

DOSAGE: Subcutaneously and intramuscularly, 50 mg.; intravenously 8 mg. sodium indigotindisulfonate (N. F.).

Sodium Iodide, Sodii Iodidum, U. S. P.—NaI.

Colorless crystals or white powder, odorless and having a saline taste. Very soluble in water (1 in 0.6) and freely soluble in glycerin (1 in 1) and in alcohol (1 in 2).

ACTION AND USES: Practically identical with those of potassium iodide but has a less disagreeable taste.

DOSAGE: 0.3 Gm. (U. S. P.).

Sodium Iodide Ampuls, Ampullae Sodii Iodidi, N. F. (Sodium iodide Injection).—Sodium iodide in sterile aqueous solution.

DOSAGE: 1 Gm. sodium iodide (N. F.).

Sodium Lactate Injection, Injectio Sodii Lactatis, U. S. P.—Sterile solution of sodium lactate in water for injection.

ACTION AND USES: Used by injection in approximate isotonic solution of sixth-molar (1.87 per cent) concentration to combat acidosis, especially acetonemia of diabetes, for which it is considered superior to sodium bicarbonate. It is not indicated in acidosis secondary to congenital heart disease with cyanosis.

DOSAGE: Subcutaneously or intravenously in acetonemia at the rate of 300 cc. per hour; 60 cc. of a sixth-molar solution per kilogram of body weight produces a rise in bicarbonate concentration approximately sufficient to yield an additional 33 volumes of carbon dioxide per hundred cubic centimeters of plasma.

Sodium Laurylsulfate, Sodii Laurylsulfas, U. S. P.—A mixture of normal sodium alkyl sulfates, chiefly sodium laurylsulfate ($CH_3(CH_2)_{10}CH_2OSO_3Na$).

White or light yellow crystals having a slight odor. Soluble in water (1 in 10) forming an opalescent solution.

Note: Sodium laurylsulfate conforming to the official standards is designed for external use only.

ACTION AND USES: Detergent and emulsifier; used pharmaceutically as a foaming agent in dentrifices and in the preparation of emulsified ointment bases made from the higher alcohols, as represented by the official hydrophilic ointment in which it is used in a concentration of 1 per cent. It is capable of causing irritation of the skin and is not superior to soap as a cleansing agent for the teeth.

Sodium Morrhuate Injection, Injectio Sodii Morrhuatis, U. S. P.—Sterile solution of the sodium salts of the fatty acids of cod liver oil, which may contain a suitable preservative, not to exceed 0.5 per cent, and ethyl or benzyl alcohol not to exceed 3 per cent.

ACTION AND USES: Sclerosing agent employed in aqueous solution, usually with a local anesthetic, for the intravenous obliteration of varicose veins. The possibility of sensitization or idiosyncracy to sodium morrhuate should be considered, and it should not be used in concentrations of more than 5 per cent.

DOSAGE: To be determined by the physician according to the needs of the patient (U. S. P.); 0.5 to 1 cc. of a 5 per cent solution is considered a safe preliminary test dose. In the absence of reactions, from 0.5 to 2 cc. may be separately injected at various sites for a total of not more than 5 cc. in one day.

Sodium Nitrite, Sodii Nitris, U. S. P.—$NaNO_2$.

White or nearly white crystals or masses, sticks or powder, odorless and having a mild saline taste. Deliquescent on exposure to air, being gradually converted into sodium nitrate. Freely soluble in water (1 in 1.5) but only sparingly soluble in alcohol.

ACTION AND USES: Vasodilator, similar to nitroglycerin. The action is somewhat slower and more prolonged.

DOSAGE: 60 mg. (U. S. P.).

Sodium Nitrite Tablets, Tabellae Sodii Nitritis, U. S. P.—The usual sizes contain 30 mg. and 60 mg.

Sodium Perborate, Sodii Perboras, U. S. P.—$NaBO_3.4H_2O$. Not less than 9 per cent of available oxygen.

White, odorless granules or powder with a saline taste and decomposing with the evolution of oxygen in warm or moist air. Sparingly soluble in water (1 in 40).

ACTION AND USES: Oxidizer; germicidal; used as a mouth wash (avoid routine use) and on infected wounds.

DOSAGE: 60 mg.

N. F. Aromatic Sodium Perborate, Sodii Perboras Aromaticus, N. F.—Sodium perborate with peppermit oil and soluble saccharin.

Sodium Phosphate, Sodii Phosphas, U. S. P.—$Na_2HPO_4.7H_2O$., representing about 53.5 per cent of the anhydrous salt.

Colorless, odorless, efflorescent crystals or powder having a cooling, saline taste. Freely soluble in water (1 in 4); very slightly soluble in alcohol.

ACTION AND USES: Saline cathartic, less active and having a less disagreeable taste than magnesium and sodium sulfates.

DOSAGE: 4 Gm. (U. S. P.).

Sodium Phosphate Solution, Liquor Sodii Phosphatis, N. F.—Exsiccated sodium phosphate (40 per cent) and citric acid in glycerin and distilled water.

USES: Laxative.

DOSAGE: 8 cc. (N. F.).

Effervescent Sodium Phosphate, Sodii Phosphas Effervescens, U. S. P.—100 Gm. of the salt contain exsiccated sodium phosphate (20 Gm.) in a mixture of sodium bicarbonate (47.7 Gm.), tartaric acid (25.2 Gm.) and citric acid (16.2 Gm.).

DOSAGE: 10 Gm. (U. S. P.).

Exsiccated Sodium Phosphate, Sodii Phosphas Exsiccatus, U. S. P. (Dried Sodium Phosphate).—Na_2HPO_4.

White powder which absorbs moisture readily. Freely soluble in water (1 in 8) but insoluble in alcohol.

DOSAGE: 2 Gm. (U. S. P.).

Sodium Propionate, Sodii Propionas, N. F.—CH_3CH_2COONa.

Colorless, transparent crystals or granular. crystalline powder. Odorless or with a faint acetic-butyric odor, it is deliquescent in moist air. Soluble in water (1 in 1) and in alcohol (1 in 24).

ACTION AND USES: Fungicide and antibacterial; chiefly used medicinally in 10 per cent concentration in powder or ointment form for local treatment of fungous infections of the skin, especially tinea pedis.

DOSAGE: 10 per cent ointment used at night is alternated with 10 per cent powder dusted on in the morning.

Sodium Salicylate, Sodii Salicylas, U. S. P.—$C_6H_4OH.COONa$.

White, odorless or nearly odorless powder or scales having a sweet, saline taste. Very soluble in water (1 in 1) and freely soluble in alcohol (1 in 10) and in glycerin (1 in 4). Incompatible with acids, with acid salts and with solutions of many of the alkaloids, particularly quinine, which it precipitates as the salicylate.

ACTION AND USES: The salt usually employed to secure the systemic action of salicylic acid; used extensively for the relief of pain in acute rheumatic fever.

DOSAGE: 1 Gm. (U. S. P.). In rheumatic fever larger amounts are needed, such as 1 Gm. every four hours.

Sodium Salicylate Ampuls, Ampullae Sodii Salicylatis, N. F. (Sodium Salicylate Injection).—Sodium salicylate in sterile aqueous solution.

DOSAGE: 1 Gm. sodium salicylate (N. F.).

Sodium Salicylate and Iodide Ampuls, Ampullae Sodii Salicylatis et Iodidi, N. F. (Sodium Salicylate and Iodide Injection).—Contain a sterile solution of sodium salicylate and sodium iodide in water for injection.

DOSAGE: 1 Gm. sodium salicylate and 1 Gm. sodium iodide (N. F.).

Sodium Salicylate and Iodide with Colchicine Ampuls, Ampullae Sodii Salicylatis et Iodidi cum Colchicina, N. F. (Sodium Salicylate and Iodide with Colchicine Injection).—A sterile solution of sodium salicylate, sodium iodide and colchicine in water for injection, yielding anhydrous sodium salicylate, $C_6H_4.OH.COONa$, and anhydrous sodium iodide, NaI, equal to about 98 per cent of the labeled amounts of each.

DOSAGE: 1 Gm. sodium salicylate, 1 Gm. sodium iodide and 0.65 mg. colchicine (N. F.). It may be doubted whether the injection of such a mixture is ever justified.

Sodium Salicylate Elixir, Elixir Sodii Salicylatis, N. F.—Sodium salicylate (8.5 per cent), syrup, distilled water and aromatic elixir. Alcohol content about 6 per cent.

DOSAGE: 4 cc. (N. F.).

Compound Sodium Salicylate and Gelsemium Elixir, Elixir Sodii Salicylatis et Gelsemii Compositum, N. F.—Sodium salicylate 8 per cent, potassium iodide 1.5 per cent, cimicifuga fluidextract 3.2 per cent, gelsemium fluidextract 1.6 per cent and aromatic elixir.

DOSAGE: 4 cc. (N. F.).

Sodium Salicylate Tablets, Tabellae Sodii Salicylatis, U. S. P.—The usual sizes contain 0.3 Gm. and 0.6 Gm. They should be dissolved before they are swallowed.

Sodium Stearate, Sodii Stearas, U. S. P.—Sodium stearate and sodium palmitate in varying proportions.

A white powder, soapy to touch, having a slight tallow-like odor. Slowly soluble in cold water and alcohol.

ACTION AND USES: It is used as a base for glycerin suppositories.

Sodium Sulfate, Sodii Sulfas, U. S. P. (Glauber's Salt.)—$Na_2SO_4.10H_2O$.

Colorless, odorless, efflorescent crystals or a granular powder having a bitter, saline taste. Freely soluble in water (1 in 1.5) but insoluble in alcohol.

ACTION AND USES: Saline cathartic, more disagreeable and less active than magnesium sulfate, over which it has no advantage.

DOSAGE: 15 Gm. (U. S. P.).

Exsiccated Sodium Sulfite, Sodii Sulfis Exsiccatus, U. S. P.—Contains not less than 95 per cent of Na_2SO_3.

White, odorless powder with a cooling, saline, sulfurous taste. It undergoes oxidation in air. Soluble in water (1 in 4) and sparingly soluble in alcohol.

ACTION AND USES: Principally used in preserving foods and solutions, and also as an ingredient of mouth washes, and a one per cent lotion may be applied in treatment against ringworm and pityriasis versicolor.

Sodium Thiocyanate, Sodii Thiocyanas, N. F. (Sodium Sulfocyanate).

Colorless or white, odorless, hygroscopic crystals with a cooling, saline taste. Very soluble in water (1 in 0.7) and freely soluble in alcohol (1 in 4).

ACTION AND USES: Used in hypertension, but likely to prove toxic unless the blood level is strictly controlled.

DOSAGE: 0.3 Gm. (N. F.).

Sodium Thiocyanate Elixir, Elixir Sodii Thiocyanatis, N. F.—(Elixir of Sodium Sulfocyanate).—Sodium thiocyanate (4 per cent) and sodium phosphate (4 per cent) in alcohol, orange syrup, saccharin sodium, aromatic eriodictyon syrup, compound sarsaparilla syrup and distilled water. Alcoholic content 12 to 15 per cent.

DOSAGE: 4 cc. (N. F.).

Sodium Thiosulfate, Sodii Thiosulfas, U. S. P. ("Sodium Hyposulfite").—$Na_2S_2O_3.5H_2O$.

Colorless, odorless crystals. Very soluble in water (1 in 0.5) and insoluble in alcohol.

ACTION AND USES: Used externally in the form of a lotion as application for ringworm and other parasitic diseases. Internally, rarely as cathartic. Intravenously in cyanide poisoning, and as an antidote to other metallic poisons but probably useless against the latter.

DOSAGE: By mouth or intravenously, 1 Gm. (U. S. P.).

Sodium Thiosulfate Ampuls, Ampullae Sodii Thiosulfatis, N. F. (Sodium Hyposulfite Injection).—Sodium thiosulfate in sterile aqueous solution.

DOSAGE: 1 Gm. sodium thiosulfate (N. F.).

Sparteine Sulfate, Sparteinae Sulfas, N. F.

Colorless crystals or white powder; odorless, with a saline, somewhat bitter taste. Freely soluble in water (1 in 1.1) and in alcohol (1 in 3).

ACTION AND USES: Formerly used in cardiac disease but not effective.

DOSAGE: 30 mg. (N. F.).

Spearmint, Mentha Viridis, U. S. P.—Leaves and flowering tops.

ACTION AND USES: Same as those of peppermint (see Spearmint Oil).

DOSAGE: 4 Gm. Not administered as such.

Spearmint Oil, Oleum Menthae Viridis, U. S. P.—A volatile oil.

Soluble (1 in 1) in 80 per cent alcohol.

ACTION AND USES: Aromatic carminative and flavoring agent.

DOSAGE: 0.1 cc.

Spearmint Spirit, Spiritus Menthae Viridis, U. S. P.—Spearmint oil (10 per cent) colored with spearmint in alcohol. Alcoholic content about 82 per cent.

DOSAGE: 1 cc. (U. S. P.).

Spearmint Water, Aqua Menthae Viridis, U. S. P.—A saturated solution of spearmint oil in water.

DOSAGE: 15 cc.

Spermaceti, Cetaceum, U. S. P.—A waxy substance from the head of the sperm whale.

White, nearly odorless, unctuous masses with a bland, mild taste. Insoluble in water and nearly insoluble in cold alcohol. It is soluble in boiling alcohol, in ether, in chloroform and in fixed and volatile oils.

ACTION AND USES: Used as a component of cerates and cold cream.

Squill, Scilla, N. F. (Scillae bulbus, P. I.).—Dried, fleshy inner scale of a bulb.

ACTION AND USES: Qualitatively like those of digitalis. Has been largely used as a nauseant and expectorant. Has no advantage over digitalis in cardiac disease.

Squill Fluidextract, Fluidextractum Scillae, N. F.—Squill (100 per cent). Alcoholic content about 49 per cent.

DOSAGE: 0.1 cc. (N. F.).

Squill Syrup, Syrupus Scillae, N. F.—Vinegar of squill (45 per cent) in sucrose and water.

DOSAGE: 2 cc. (N. F.).

Compound Squill Syrup, Syrupus Scillae Compositus, N. F. (Hive Syrup).—Squill fluidextract (8 per cent), senega fluidextract (8 per cent) and antimony and potassium tartrate (0.2 per cent) in water and sucrose. Alcoholic content about 7.5 per cent.

USES: Complex and irrational expectorant.

DOSAGE: 2 cc. (N. F.).

Squill Vinegar, Acetum Scillae, N. F. (Acetum Scillae, P. I.).—Squill (10 per cent) in diluted acetic acid.

DOSAGE: 1 cc. (N. F.).

Starch, Amylum, U. S. P. (Corn Starch).

ACTION AND USES: Dusting powder and diluent.

Starch Glycerite, Glyceritum Amyli, U. S. P.—Starch (10 per cent) and distilled water (20 per cent) in glycerin with benzoic acid 0.2 per cent.

USES: Emollient and excipient.

Stearic Acid, Acidum Stearicum, U. S. P.—A mixture chiefly of stearic and palmitic acid ($CH_3(CH_2)_{14}COOH$ and $CH_3(CH_2)_{16}COOH$) obtained from fats.

A white, hard crystalline solid or white or faintly yellow powder having slight odor and tallow-like taste. Soluble in alcohol (1 in 20) but almost insoluble in water.

USES: Used in making glycerin suppositories and ointments.

Stearyl Alcohol, Alcohol Stearylicum, U. S. P.—A mixture of solid alcohols consisting chiefly of stearyl alcohol ($CH_3(CH_2)_{16}CH_2OH$).

Unctuous, white flakes or granules. Insoluble in water but soluble in alcohol and in ether.

ACTION AND USES: A pharmaceutic ingredient of the official hydrophilic ointment and hydrophilic petrolatum. It is used like cetyl alcohol as an emulsifying adjunct to stabilize hydrous ointments and creams.

Sterculia Gum, Gummi Sterculiae, N. F. (Gum Karaya).—Dried gummy exudation from species of Sterculia or Cochlospermum.

ACTION AND USES: A mucilaginous gum used pharmaceutically as a constituent of lotions, denture adhesive powders and dentrifices and medicinally as a mechanical laxative to increase intestinal bulk in chronic constipation. Its latter use is subject to allergic sensitization; urticaria has followed its internal administration. It is more readily soluble in cold water and more acid than tragacanth but is less mucilaginous.

Stibophen, Stibophenum, N. F. (Fuadin).—$C_{12}H_4O_{16}S_4SbNa_5.7H_2O$.

White, odorless crystalline powder which is affected by light. Freely soluble in water; nearly insoluble in alcohol.

ACTION AND USES: An organic antimony compound containing 13.6 per cent trivalent antimony used in solution for intramuscular (rarely intravenous) injection in the treatment of schistosomiasis and leishmaniasis, including early granuloma inguinale. In schistosomiasis it is indicated, together with separately administered iron for anemia, as the treatment of choice during the intestinal stage of the disease. It is less irritating than tartrate compounds which must be given intravenously, but it has been replaced by less toxic pentavalent organic arsenicals for the treatment of trypanosomiasis. It is usually administered in a solution of 6.3 per cent concentration providing the approximate equivalent of 8.5 mg. trivalent antimony per 1 cc.

DOSAGE: 0.2 Gm. (N. F.), intramuscularly. Approximately 3 cc. of a 6.3 per cent solution provides this amount of stibophen. Doses of 3.5 to 5 cc. given on alternate days for a total of 40 cc. of such solution are generally recommended as a course of treatment to be repeated once if needed and/or followed by weekly or biweekly injections to prevent relapse.

Stibophen Ampuls, Ampullae Stibopheni, N. F.

DOSAGE: 0.2 Gm. stibophen (N. F.).

Powdered Stomach, Stomachus Pulveratus, U. S. P. (Dried Stomach).—Dried and powdered defatted wall of the stomach of a hog.

ACTION AND USES: Used in the treatment of pernicious anemia.

DOSAGE: One U. S. P. unit daily.

Storax, Styrax, U. S. P. (Liquid Storax).—A balsam.

ACTION AND USES: Closely resembles Peruvian balsam, over which it has no advantage. An ointment (1 in 4) has been used as a parasiticide in scabies and other parasitic infections. No indications for its internal use.

DOSAGE: 1 Gm.

Stramonium, Stramonium, U. S. P. (Jamestown Weed, Jimson Weed).—Leaves, containing not less than 0.25 per cent of alkaloids.

ACTION AND USES: Similar to those of belladonna. Sometimes used in asthma powders.

DOSAGE: 0.075 Gm.

Stramonium Capsules, Capsulae Stramonii, N. F.
DOSAGE: 75 mg. stramonium (N. F.).

Stramonium Extract, Extractum Stramonii, U. S. P.—Two forms: pilular stramonium extract and powdered stramonium extract. One Gm. extract represents about 4 Gm. stramonium and yields about 1 per cent alkaloids.

DOSAGE: 20 mg. (U. S. P.).

Stramonium Fluidextract, Fluidextractum Stramonii, N. F.—Stramonium (100 per cent), yielding about 0.25 per cent alkaloids. Alcoholic content about 60 per cent.
DOSAGE: 0.075 cc. (N. F.).

Stramonium Ointment, Unguentum Stramonii, N. F.—Pilular stramonium extract (10 per cent), diluted alcohol, wool fat, yellow wax and petrolatum.

Stramonium Tincture, Tinctura Stramonii, U. S. P.—Stramonium (10 per cent), yielding about 0.025 per cent stramonium alkaloids. Alcoholic content about 67 per cent.

DOSAGE: 0.75 cc. (U. S. P.).

Strontium Bromide, Strontii Bromidum, N. F.
Colorless, odorless crystals with a bitter, saline taste. Very soluble in water (1 in 0.35) and soluble in alcohol.
ACTION AND USES: The same as those of sodium bromide, over which it has no advantage.
DOSAGE: 1 Gm. (N. F.).

Strontium Salicylate, Strontii Salicylas, N. F.—$Sr(C_6H_4OH.COO)_2.2H_2O$. White, odorless powder having a somewhat sweet, saline taste. Soluble in water (1 in 19) and sparingly soluble in alcohol (1 in 61).

ACTION AND USES: Identical with those of sodium salicylate, over which it has no advantage.

DOSAGE: 1 Gm. (N. F.).

Strophanthin, Strophanthinum, N. F.—A glycoside or mixture of glycosides obtained from strophanthus having a potency equal to 40 to 60 per cent of standard ouabain U. S. P.

White or yellowish powder. Soluble in water and in diluted alcohol. *Caution: Strophanthin is extremely poisonous.*

ACTION AND USES: Like those of digitalis. Strophanthin acts rapidly after intravenous injection and is excreted promptly. Its absorption from the alimentary canal is so variable that its administration by mouth is inadvisable.

DOSAGE: Intravenous, 0.5 mg. N. F. Caution should be used, especially if patient has been taking digitalis.

Ampullae Strophanthini, Strophanthin Ampuls, N. F.—A sterile solution of strophanthin in water for injection. Its potency shall be stated on the label of the container in terms of the quantity of U. S. P. Ouabain Reference Standard to which it is equivalent.

Strophanthus, Strophanthus, N. F. (Strophanthus Seed).—Ripe seeds. 1 Gm. is equivalent to 55 mg. standard Ouabain U. S. P.

ACTION AND USES: Strophanthus and strophanthus tincture have properties similar to those of the glycoside strophanthin. The absorption of strophanthus from the alimentary canal is so variable that administration by mouth is not advisable.

DOSAGE: 60 mg. (N. F.).

Strophanthus Tincture, Tinctura Strophanthi, N. F. (Tinctura Strophanthi P. I.).—Strophanthus (10 per cent) in purified benzine and alcohol. One cc. is equivalent to about 5.5 mg. of U. S. P. XII reference ouabain. Alcoholic content about 90 per cent.

DOSAGE: 0.5 cc. (N. F.).

Strychnina, Strychninae, N. F.

Colorless, odorless crystals or white powder. Extremely bitter. *(Caution: Strychnine is extremely poisonous, N. F.).* Very slightly soluble in water (1 in 6,420) and slightly soluble in alcohol (1 in 136).

ACTION AND USES: Increases reflex activity of the spinal cord; little or no effect on the higher nervous centers; also used as a bitter tonic, generally in the form of a preparation of nux vomica.

As strychnine is so slightly soluble, it is generally prescribed as one of its salts. Of these, the sulfate meets every need.

DOSAGE: 1.5 mg. (N. F.).

Strychninae Nitras, Strychninae Nitras, N. F.

Colorless, odorless crystals or white powder. Sparingly soluble in water (1 in 45) and slightly soluble in alcohol (1 in 150). *Caution: Strychnine nitrate is extremely poisonous.*

ACTION AND USES: Same as those of strychnine.

DOSAGE: 2 mg. (N. F.).

Strychnine Nitrate Tablets, Tabellae Strychninae Nitratis, N. F.

DOSAGE: 2 mg. strychnine nitrate (N. F.).

Strychnine Phosphate, Strychninae Phosphas, N. F.

White, odorless crystals or powder. Slowly soluble in water (1 in 30) and slightly soluble in alcohol. *Caution: Strychnine phosphate is extremely poisonous. (N. F.).*

ACTION AND USES: The same as those of strychnine.

DOSAGE: 2 mg. (N. F.).

Iron, Quinine and Strychnine Phosphates Elixir, Elixir Ferri, Quininae, et Strychninae Phosphatum, N. F. (I, Q & S Phosphates Elixir).—Soluble ferric phosphate (3.5 per cent), quinine phosphate (0.5 per cent), strychnine phosphate (0.025 per cent), orange oil, alcohol, glycerin and water. Alcoholic content about 23.5 per cent.

DOSAGE: 4 cc. (N. F.).

Strychnine Sulfate, Strychninae Sulfas, U. S. P.

Colorless or white crystals or white powder, odorless; efflorescent in dry air. Sparingly soluble in water (1 in 35) and in alcohol (1 in 85). *Caution: Strychnine sulfate is extremely poisonous. (U. S. P.).*

USES: Same as those of strychnine.

DOSAGE: 2 mg. (U. S. P.).

Iron, Quinine and Strychnine Elixir, Elixir Ferri, Quininae, et Strychninae, N. F. (Elixir I. Q. & S.).—Ferric citrochloride tincture (12.5 per cent), quinine hydrochloride (0.8 per cent), strychnine sulfate (0.0175 per cent), compound orange spirit, alcohol, glycerin and water. Alcoholic content about 24.5 per cent. *The elixir should not be dispensed if markedly darkened in color (N. F.).*

DOSAGE: 4 cc. (N. F.).

Strychnine Sulfate Tablets, Tabellae Strychninae Sulfatis, U. S. P.—The usual sizes contain 0.6 mg., 1 mg., 1.2 mg., 1.7 mg. and 2 mg.

DOSAGE: 2 mg. strychnine sulfate (U. S. P.).

Succinchlorimide, Succinchlorimidum, N. F.—$C_4H_4O_2NCl$.

Contains about 26 per cent active chlorine.

White, crystalline powder with an odor and taste of chlorine. It is light-sensitive. Soluble in water (1 in 70).

ACTION AND USES: A compound of chlorine for the disinfection of drinking water in which it is effective against the common intestinal pathogenic bacteria in a dilution 11.6 parts per million (about 1: 100,000) within twenty minutes.

Succinchlorimide Tablets, Tabellae Succinchlorimidi, N. F.

DOSAGE: For the disinfection of water, 11.6 mg. per liter; usually available in tablets containing 0.12 and 0.3 Gm.

Succinylsulfathiazole, Succinylsulfathiazolum, U. S. P.—$C_{13}H_{13}N_3O_6S_2$.

White or yellowish white crystalline powder; odorless; stable in air, darkens slowly on exposure to light. Very slightly soluble in water (1 in 4,800); soluble in dilute alkalies, evolving carbonic acid from sodium bicarbonate; sparingly soluble in alcohol.

ACTION AND USES: A sulfathiazole derivative of poor intestinal absorbability used orally as an intestinal bacteriostatic agent chiefly against gram-negative bacillary organisms

in the prophylaxis and treatment of persons with acute bacillary dysentery and of chronic carriers of the disease; used for the reduction of coliform bacteria before and after surgical procedures on the intestinal tract. It is considered less toxic than sulfaguanidine used for the same purposes.

DOSAGE: 2 Gm. (U. S. P.), orally. The initial and total daily doses are calculated on the basis of 0.25 Gm. per kilogram of body weight, the total daily dose being divided into six equal portions given at four hour intervals.

Succinylsulfathiazole Tablets, Tabellae Succinylsulfathiazoli, U. S. P.

DOSAGE: 2 Gm. succinylsulfathiazole (U. S. P.), usually available in tablets containing 0.3 and 0.5 Gm.

Sucrose, Sucrosum, U. S. P. (Saccharum, Sugar).—Obtained from the sugar-cane, the sugar-beet and other sources.

White, odorless crystals or powder with a sweet taste. Very soluble in water (1 in 0.5) and slightly soluble in alcohol.

ACTION AND USES: Sweetening agent in official syrups and other preparations.

Syrup, Syrupus, U. S. P. (Simple Syrup).—Sucrose (85 per cent) in distilled water.

Prepared Suet, Sevum Praeparatum, U. S. P. (Mutton Suet).

A white, solid, almost odorless fat having a bland taste when fresh but becoming rancid on prolonged exposure to air.

ACTION AND USES: Used in the preparation of ointments and cerates.

Sulfadiazine, Sulfadiazinum, U. S. P.—$C_{10}H_{10}N_4O_2S$.

White or slightly yellowish powder, nearly odorless, stable in air but darkening slowly on exposure to light. Very slightly soluble in water (about 1 in 13,000) and sparingly soluble in alcohol. One Gm. dissolves in about 620 cc. of human serum at 37 C. Freely soluble in dilute mineral acids, solution of sodium and potassium hydroxides and ammonia.

ACTION AND USES: A less toxic sulfonamide derivative than sulfanilamide, sulfapyridine or sulfathiazole. It is considered the drug of choice in the treatment of certain streptococcic, pneumococcic, meningococcic and Friedlander's bacillus infections, and the equal of the other sulfonamide derivatives in the treatment of staphylococcic infections and possibly gonococcic infections. Its poor solubility restricts it to oral administration, but despite relatively slow absorption and rapid excretion its uneven distribution in the tissues permits adequate blood and spinal fluid concentrations with

moderate doses. Blood concentrations of 10 to 15 mg. per hundred cubic centimeters are considered satisfactory therapeutic levels of the drug.

DOSAGE: 2 Gm.. (U. S. P.). Initial dosage is ordinarily calculated on the basis of 0.05 to 0.1 Gm. per kilogram of body weight; subsequent doses are usually one-third to one-fourth the initial dose, given at four hour intervals, depending on the blood sulfadiazine concentration.

Sulfadiazine Tablets, Tabellae Sulfadiazini, U. S. P.

DOSAGE: 2 Gm. sulfadiazine (U. S. P.).

Sulfadiazine Sodium, Sulfadiazinum Sodicum, U. S. P.—A water-soluble sodium compound of sulfadiazine.

A white powder. One Gm. dissolves in about 2 cc. of water; the resulting solution is alkaline to phenolphthalein. On prolonged exposure to the air it absorbs carbon dioxide and becomes insoluble. It is affected by light.

ACTION AND USES: A soluble salt of sulfadiazine for intravenous injection when the drug cannot be given orally. The sterilized salt is made up in 5 per cent solution of sterile distilled water for injection in quantities to be checked by blood level determinations to avoid inordinately high concentrations.

DOSAGE: 2 Gm. (U. S. P.). Intravenous initial dosage is calculated on the same basis as for oral administration not to exceed a total of 5.0 Gm.; subsequent doses are based on 0.05 Gm. per kilogram of body weight given at twelve hour intervals.

Sterile Sulfadiazine Sodium, Sulfadiazinum Sodicum Sterile, U. S. P. (Sterile Sodium Sulfadiazine).—Meets the requirements of the *Sterility Tests for Solids*, U. S. P.

ACTION AND USES: The sterilized equivalent of sulfadiazine sodium for the preparation of solutions of the drug for injection.

DOSAGE: Intravenous, 2 Gm. (U. S. P.) adjusted in accordance with the body weight.

Sulfaguanidine, Sulfaguanidinum, U. S. P.—$C_7H_{10}N_4O_2S$.

White, needle-like crystalline powder. Nearly odorless, stable in air but darkening on exposure to light. One Gm. dissolves in about 1,000 cc. water. It is sparingly soluble in alcohol, freely soluble in dilute mineral acids, insoluble in sodium hydroxide solution at room temperature.

ACTION AND USES: A poorly absorbed sulfonamide derivative used orally as an intestinal chemotherapeutic agent for the prophylaxis and treatment of bacillary dysentery infec-

tions. It is less toxic than most of the better absorbed sulfonamides employed against systemic infections.

DOSAGE: 2 Gm. (U. S. P.), orally. The initial dose is based on 0.05 Gm. per kilogram of body weight; subsequent doses are the same, given every four hours until the number of stools is reduced to five or less per day, then every eight hours for three days. Courses longer than two weeks are not recommended.

Sulfaguanidine Tablets, Tabellae Sulfaguanidini, U. S. P.

DOSAGE: 2 Gm. sulfaguanidine (U. S. P.).

Sulfamerazine, Sulfamerazinum, U. S. P.

White or faintly yellowish white, odorless, crystalline powder, stable in air but darkening on exposure to light. One Gm. dissolves in about 6,250 cc. water; readily soluble in solutions of mineral acids and in sodium, potassium or ammonium hydroxide. Slightly soluble in alcohol.

ACTION AND USES: A more rapidly and completely absorbed but more slowly excreted sulfonamide derivative than sulfadiazine, used for the same purposes. It is capable of producing effective blood concentrations with approximately one-half the amount required by the latter and may thus be given less frequently. Blood concentrations of 10 to 15 mg. per hundred cubic centimeters are considered adequate. Its greater solubility in neutral or acid urine makes it less likely to cause crystalluria than sulfadiazine.

DOSAGE: 2 Gm. (U. S. P.), orally. Twice this amount is usually adequate as an initial dose; subsequent doses, one-half the official dose every eight hours or as indicated by blood level determinations.

Sulfamerazine Tablets, Tabellae Sulfamerazini, U. S. P.

DOSAGE: 2 Gm. sulfamerazine (U. S. P.).

Sulfamerazine Sodium, Sulfamerazinum Sodicum, U. S. P. —The sodium salt of sulfamerazine.

White or yellowish, odorless crystalline powder, which slowly absorbs carbon dioxide from moist air to liberate sulfamerazine. One Gm. dissolves in about 3 cc. water; slightly soluble in alcohol.

ACTION AND USES: A soluble salt of sulfamerazine for intravenous injection when the drug cannot be administered orally or when satisfactory blood levels cannot be achieved by the oral route. The sterilized salt is given as a 5 per cent solution in sterile distilled water.

DOSAGE: An initial intravenous dose calculated on the basis of 0.05 Gm. per kilogram of body weight is sufficient to produce a drug concentration of 15 to 20 mg. per hundred

cubic centimeters of blood; subsequent doses should be based on 0.25 Gm. per kilogram given at twelve hour intervals, but oral administration with sulfamerazine should be resumed as early as possible and blood levels checked to avoid a blood concentration in excess of 15 mg. per cent.

Sterile Sulfamerazine Sodium, Sulfamerazinum Sodicum Sterile, U. S. P.—Meets the requirements of the *Sterility Test for Solids,* U. S. P.

ACTION AND USES: The sterilized equivalent of sulfamerazine sodium, used for the preparation of solutions for intravenous injection.

DOSAGE: Intravenous, 2 Gm. (U. S. P.), adjusted in accordance with the body weight.

Sulfanilamide, Sulfanilamidum, U. S. P.—Contains not less than 99 per cent of $C_6H_8O_2N_2S$.

White, odorless crystals, or a crystalline powder. One Gm. sulfanilamide is soluble in about 125 cc. of water, in about 37 cc. of alcohol and in 5 cc. of acetone, at 25 C. It is also soluble in glycerin and hydrochloric acid and is very soluble in boiling water. It is insoluble in chloroform, in ether and in benzene.

ACTION AND USES: One of the first of the sulfonamide compounds developed as a chemotherapeutic agent, now partly superceded by less toxic derivatives. It remains the sulfonamide of choice in the treatment of chancroidal infection. It is second to sulfadiazine or sulfamerazine in the treatment of aerobic hemolytic streptococcic infections. It is probably least effective in staphylococcic infections. It is given orally, or subcutaneously by injection of a 1 per cent solution in isotonic sodium chloride solution. Its tendency to induce granulocytopenia must be carefully watched between fourteen to forty days after starting treatment.

DOSAGE: 2 Gm. (U. S. P.). The initial peroral dose is based on 0.1 Gm. per kilogram of body weight; subsequent doses of one-sixth that amount at four hour intervals and according to the blood concentration. Subcutaneous doses are the same but administered at six to eight hour intervals.

Sulfanilamide Tablets, Tabellae Sulfanilamidi, U. S. P.—The usual sizes contain 0.3 Gm. and 0.5 Gm.

Sulfapyridine, Sulfapyridinum, N. F.—Contains not less than 99 per cent of $C_{11}H_{11}N_3O_2S$.

White or faintly yellowish white crystals, granules or powder. It is odorless or nearly so and is stable in air but slowly darkens on exposure to light. Soluble in water (1 to 3,500) and in alcohol (1 in 440). Freely soluble in dilute mineral acids and in aqueous solutions of potassium and sodium hydroxides.

ACTION AND USES: A more irregularly absorbed and more slowly excreted sulfonamide than sulfanilamide, capable of producing more

serious though less frequent toxic reactions than the latter. Sulfapyridine has been largely superceded by other less toxic derivatives. It is more specific than other derivatives for the treatment of dermatitis herpetiformis. A concentration of 4 to 6 mg. of the drug per hundred cubic centimeters of blood is considered necessary for prompt therapeutic response.

DOSAGE: 2 Gm. (N. F.).

Sulfapyridine Tablets, Tabellae Sulfapyridini, U. S. P.—The usual sizes contain 0.3 Gm. and 0.5 Gm.

Sterile Sulfapyridine Sodium, Sulfapyridinum Sodicum Sterile, U. S. P. (Sterile Sodium Sulfapyridine).

White, odorless crystals or powder. On prolonged exposure to humid air it absorbs carbon dioxide with the liberation of sulfapyridine and becomes incompletely soluble in water. It is affected by light. It is freely soluble in water (1 in 1.5) and in alcohol (1 in 10).

ACTION AND USES: Used for the preparation of solutions for intravenous injection. It is made up in concentrations of 5 per cent in sterile distilled water.

DOSAGE: 2 Gm. (U. S. P.).

Sulfarsphenamine, Sulfarsphenamina, U. S. P.—Consists chiefly of disodium 3,3′-diamino-4,4′-dihydroxyarsenobenzene-*N*-dimethylenesulfonate. It contains not less than 19 per cent arsenic (As).

Sulfarsphenamine must be prepared in an establishment licensed for the purpose by the United States Government on recommendation of the Surgeon General of the United States Public Health Service. Each lot of the product before being offered for sale must comply with the toxicity, labeling and other requirements of the National Institute of Health and be released by the Institute.

Yellow powder. It is odorless or has a very slight odor resembling sulfur dioxide. In the dry state or in solution it is slowly oxidized by exposure to air, becoming dark and more toxic. Very soluble in water, yielding a yellow solution; slightly soluble in alcohol and insoluble in ether.

ACTION AND USES: The same as neoarsphenamine.

DOSAGE: Intramuscular, 0.45 Gm. (U. S. P.).

Sulfathiazole, Sulfathiazolum, U. S. P.—Contains not less than 99 per cent of $C_9H_9N_3O_2S_2$.

White or faintly yellowish white crystals, granules or powder. It is odorless or nearly so and is stable in air but slowly darkens on exposure to light. Soluble in water (1 in 1,700) and in alcohol (1 in 200). Soluble in acetone, freely soluble in diluted mineral acids, in aqueous solutions of potassium and sodium hydroxides and in ammonia test solution.

ACTION AND USES: A relatively rapidly absorbed and excreted sulfonamide derivative appearing in the urine in conjugated form to a lesser degree than either sulfanilamide or sulfapyridine. Its poor solubility restricts it to oral administration. It is probably the sulfonamide of choice in the treatment of gonococcic infections and is considered equal to sulfadiazine in staphylococcic infections. It is more toxic than and inferior to the latter drug for pneumococcic, meningococcic and streptococcic infections. In severe types of infection due to these organisms, a concentration of sulfathiazole of 4 to 6 mg. per hundred cubic centimeters of blood is considered desirable; less is adequate against gonorrhea. Of all sulfonamides in use, it leads as a cause of drug fever and skin rash and is peculiarly prone to cause scleral injection and damage to the renal epithelium.

DOSAGE: 2 Gm. (U. S. P.), orally. For gonorrhea, 3 Gm. is given in divided doses on the first day, then 2 Gm. dailv for a period of five days; for severe staphylococcic, meningococcic and pneumococcic infections in children, 0.15 to 0.20 Gm. per kilogram of body weight (up to 25 Kg.) is given daily in divided doses until fever has subsided for forty-eight hours.

Sulfathiazole Tablets, Tabellae Sulfathiazoli, U. S. P.—The usual sizes contain 0.3 Gm. and 0.5 Gm.

Sulfathiazole Sodium, Sulfathiazolum Sodicum, U. S. P.—The sodium salt of sulfathiazole.

ACTION AND USES: A soluble salt of sulfathiazole for intravenous injection in the treatment of severe sulfathiazole-sensitive infections not controlled by oral therapy. The sterilized salt is administered in 5 per cent solution of sterile distilled water.

DOSAGE: 2 Gm. (U. S. P.), intravenously. Initial doses are computed on the basis of 0.1 Gm. per kilogram of body weight; subsequent doses should be based on 0.05 Gm. per kilogram, administered at six hour intervals, and not to exceed a blood concentration of "total" drug of 12 milligrams per cent.

Sterile Sulfathiazole Sodium, Sulfathiazolum Sodicum Sterile, U. S. P. (Sterile Sodium Sulfathiazole).—Meets the requirements of the *Sterility Test for Solids,* U. S. P.

ACTION AND USES: The sterilized equivalent of sulfathiazole sodium used for the preparation of solutions for intravenous injection.

DOSAGE: Intravenous, 2 Gm. (U. S. P.).

Sulfobromophthalein Sodium, Sulfobromophthaleinum Sodicum, U. S. P.—$C_{20}H_8Br_4O_{10}S_2Na_2$.

White, crystalline powder, odorless and with a bitter taste; it is hygroscopic. Soluble in water, insoluble in alcohol.

ACTION AND USES: It is used as a liver function test.

DOSAGE: 2 mg. per kilogram of body weight; 5 per cent solution intravenously.

Sulfobromophthalein Sodium Injection, Injectio Sulfobromophthaleini Sodici, U. S. P. (Sulfobromophthalein Sodium Ampuls).—The usual size contains 150 mg. in 3 cc.

DOSAGE: For each kilogram of body weight, intravenous, 2 mg. sulfobromophthalein sodium (U. S. P.).

Sulfonethylmethane, Sulfonethylmethanum, N. F.—Diethylsulfonmethylethylmethane.

Colorless, lustrous, odorless, crystalline scales, having a bitter taste in aqueous solutions. Slightly soluble in water (1 in 200) and soluble in alcohol.

ACTION AND USES: A hypnotic producing in ordinary doses no other effects than sleep. The sleep comes on in about an hour, though in some cases it may be delayed. Its continued use may lead to formation of a habit and produce fatal poisoning.

DOSAGE: 0.75 Gm. (N. F.), best administered in hot milk or other hot drinks.

Sulfonmethane, Sulfonmethanum, N. F. (Sulfonal).—Diethylsulfon-dimethylmethane.

White, odorless and nearly tasteless crystals or powder. Slightly soluble in water (1 in 365) and sparingly soluble in alcohol (1 in 60).

ACTION AND USES: Hypnotic and sedative. Has properties similar to those of sulfonethylmethane but usually acts somewhat more slowly.

DOSAGE: 0.75 Gm. (N. F.). Preferably administered in hot milk or other hot drinks.

Precipitated Sulfur, Sulfur Praecipitatum, U. S. P.—Sulfur made by precipitating a solution of calcium sulfide with hydrochloric acid.

Fine, pale yellow, odorless, tasteless powder. Practically insoluble in water and in alcohol.

ACTION AND USES: Same as those of sublimed sulfur; more active and irritant because it is in finer powder.

DOSAGE: 4 Gm. (U. S. P.).

Sulfur Ointment, Unguentum Sulfuris, U. S. P.—Precipitated sulfur (15 per cent) in wool fat and white ointment.

Sublimed Sulfur, Sulfur Sublimatum, U. S. P. (Flowers of Sulfur).—S.

Fine, yellow powder having a slight, characteristic odor and a faintly acid taste. Practically insoluble in alcohol and in water.

ACTION AND USES: Used locally in parasitic diseases of the skin and as a mild cathartic, especially in hemorrhoids.

DOSAGE: 4 Gm.

Alkaline Sulfur Ointment, Unguentum Sulfuris Alkalinum, N. F.—Sublimed sulfur (20 per cent) and potassium carbonate (10 per cent) in water, wool fat, yellow wax and petrolatum.

Compound Sulfur Ointment, Unguentum Sulfuris Compositum, N. F. (Wilkinson's Ointment, Hebra's Itch Ointment).—Sublimed sulfur (15 per cent), juniper tar (15 per cent) and precipitated calcium carbonate, in soft soap and solid petroxoline.

Washed Sulfur, Sulfur Lotum, N. F.—Contains not less than 99.5 per cent sulfur.

Fine, yellow, odorless, tasteless powder. Practically insoluble in water and in alcohol.

ACTION AND USES: The same as those of sublimed sulfur.

DOSAGE: 4 Gm. (N. F.).

Sulfuric Acid, Acidum Sulfuricum, N. F.—H_2SO_4 (about 96 per cent).

A colorless, odorless, corrosive liquid. Miscible with water or alcohol with evolution of much heat.

ACTION AND USES: Similar to those of hydrochloric acid. Externally, the dilute acid is used as astringent. *Caution: When sulfuric acid is mixed with other liquids, it should always be added to the diluent and great caution should be observed. (N. F.)*

Diluted Sulfuric Acid, Acidum Sulfuricum Dilutum, U. S. P.—H_2SO_4 (about 10 per cent).

DOSAGE: 1 cc., well diluted.

N. F. Sun Cream, Cremor Solis N. F., N. F. (Sun Tan Ointment).—Contains phenyl salicylate 5 per cent, ethyl aminobenzoate 2 per cent and 1 per cent each of titanium dioxide and neocalamine with yellow ferric oxide and coumarin in an ointment base comprised of white wax, triethanolamine, stearyl alcohol, stearic acid, glycerin and distilled water.

ACTION AND USES: Used for the prevention of sunburn in which phenyl salicylate, ethyl aminobenzoate, titanium dioxide and neocalamine act as the chief absorbent and screening agents against erythemal ultraviolet rays. The need for more than the first such agent and the complexity of the base required to impart adherent and water-resistant properties may be questioned.

Suprarenal, Suprarenalum, N. F. (Desiccated Suprarenal, Dried Adrenal Substance, Suprarenalum Siccum).—Dried, partially defatted, powdered suprarenal gland of cattle, sheep or swine. One part represents approximately 6 parts by weight of the fresh gland. It contains no diluent or preservative.

A light yellow to brown powder with a slight characteristic odor. Only partially soluble in water.

ACTION AND USES: The usefulness of this preparation is obscure. The medullary portion of the suprarenal gland contains epinephrine which is ineffective by mouth; the cortical portion contains a substance essential to life, but it is not considered to be therapeutically effective in this dosage. Both principles are impaired by drying.

DOSAGE: 0.25 Gm. (N. F.).

Suramin Sodium, Suraminum Sodicum, U. S. P. (Naphuride, Bayer 205, Germanin).

White or slightly pink, odorless, slightly bitter powder, which is affected by light. Soluble in water but only slightly soluble in alcohol.

ACTION AND USES: The soluble salt of an organic sulfonic acid compound used for intravenous injection in the prophylaxis and treatment of African forms of trypanosomiasis. Its trypanosomidal activity in this disease is sometimes overshadowed by serious toxic effects, especially on the adrenals, so that frequent examination of the blood and urine for signs of toxic injury are essential.

DOSAGE: Intravenous, 1 Gm. (U. S. P.) in 10 per cent solution of sterile distilled water. Initial doses of 0.5 Gm. given weekly are considered safer and may be cautiously increased to 1 Gm. if tolerated, for a total of 5 to 10 Gm.; for prophylaxis, 1 Gm. is administered and repeated once after one week and then discontinued for a period of three months.

Surgical Sutures, Chordae Chirurgicales, U. S. P.—Strands of other than silk or the intestinal fibers of sheep, in the form of single filaments or as filaments or fibers twisted or braided together, which may or may not be coated. Surgical surtures may be sterilized by steam.

ACTION AND USES: Materials, chiefly plastics and cotton, used as substitutes (not necessarily inferior) for silk or so-called catgut sutures and ligatures employed in surgery.

Talc, Talcum, U. S. P. (Purified Talc, U. S. P. XII).—A purified native hydrous magnesium silicate, sometimes containing a small amount of aluminum silicate.

A fine white or nearly white, odorless, tasteless powder, which adheres to the skin and is slippery to the touch.

ACTION AND USES: Used as a dusting powder and as a clarifying agent in pharmacy.

Tannic Acid, Acidum Tannicum, U. S. P. (Gallotannic Acid, Tannin).—Usually obtained from nutgalls.

A yellowish white to light brown powder, scales or spongy masses, odorless or having a faint, characteristic odor and a strongly astringent taste. Freely soluble in glycerin (1 in 1) and very soluble in water, in acetone and in alcohol. Incompatible with soluble preparations of iron.

ACTION AND USES: Astringent; local hemostatic; in solution for burns; antidote of uncertain value for many alkaloidal and metallic poisons.

DOSAGE: As antidote, 1 Gm.

Tannic Acid Glycerite, Glyceritum Acidi Tannici, U. S. P. (Glycerite of Tannin).—Tannic acid (20 per cent), sodium citrate (1 per cent) in glycerin with exsiccated sodium sulfite 0.2 per cent.

Tannic Acid Ointment, Unguentum Acidi Tannici, U. S. P.—Tannic acid (20 per cent) in glycerin and yellow ointment with 0.2 per cent sodium sulfite. *Caution: During its manufacture and storage this ointment must not come in contact with iron utensils or containers. (U. S. P.)*

Taraxacum, Taraxacum, N. F. (Dandelion Root).—Rhizome and roots.

ACTION AND USES: Has been used as a bitter tonic (without advantage over gentian) and as a mild laxative in habitual constipation (inferior to drugs like cascara sagrada); has no specific action on the liver.

DOSAGE: 4 Gm. (N. F.).

Compound Taraxacum Elixir, Elixir Taraxaci Compositum, N. F.—Taraxacum fluidextract (3.5 per cent), fluidextract wild cherry (2 per cent), glycyrrhiza fluidextract, sweet orange peel tincture, cinnamon tincture, compound cardamom tincture, glycerin and aromatic elixir. Alcoholic content about 26.5 per cent.

Taraxacum Fluidextract, Fluidextractum Taraxaci, N. F. (Dandelion Root Fluidextract).—Taraxacum (100 per cent). Alcoholic content about 35 per cent.

DOSAGE: 4 cc. (N. F.).

Tartaric Acid, Acidum Tartaricum, U. S. P.—HOOC.OH. HC.CH.OH.COOH.

A white powder or colorless crystals, odorless with an acid taste. Very soluble in water (1 in 0.8) and in alcohol (1 in 3).

ACTION AND USES: Mild acid; used in the manufacture of effervescent salts.

Terpin Hydrate, Terpini Hydras, N. F.

Colorless, lustrous, nearly odorless crystals having a slightly aromatic and somewhat bitter taste. Slightly soluble in water (1 in 200) and soluble in alcohol (1 in 13).

ACTION AND USES Antiseptic, diuretic; largely used as an expectorant in bronchitis.

DOSAGE: 0.25 Gm.

Terpin Hydrate Elixir, Elixir Terpini Hydratis, N. F.—Terpin hydrate (1.7 per cent), sweet orange peel tincture, benzaldehyde spirit, alcohol, glycerin, syrup and distilled water. Alcoholic content about 40 per cent.

DOSAGE: 4 cc. (N. F.).

Testosterone Propionate, Testosteroni Propionas, U. S. P.

White or slightly yellow crystalline powder; odorless and stable in air. It is insoluble in water but freely soluble in alcohol.

ACTION AND USES: A more soluble compound of the synthetically prepared androgen, testosterone, better suited for injection; used for the treatment of deficiency or absence

of testicular hormone in eunuchoidism, hypogonadism and in postcastration or eunuchism. In young males, care must be taken to avoid stimulation of full sexual maturity for which such subjects are psychologically unprepared; less is usually required to relieve symptoms than the amount required to promote pubescence and the development of infantile genitalia. Its indiscriminate use in females or for undemonstrable deficiency in the male is not recommended and may be attended by virilism in women or priapism in the male. It has little effect in psychic impotence or as an aphrodisiac.

DOSAGE: Intramuscular, 25 mg. (U. S. P.), usually dissolved in oil for injection. Each milligram represents a potency of 50 international capon units. To induce pubescence in eunuchoidism 10 to 25 mg. three times weekly for several weeks is sufficient; constitutional symptoms may be relieved by as little as 5 mg. at similar intervals. Larger doses may be needed for postcastration symptoms in adults. Dosage must be adjusted to individual requirements; priapism is an indication for temporary withdrawal or reduction of the dosage.

Tetanus and Gas Gangrene Antitoxins, Antitoxina Tetanica et Gasgangraenosa, U. S. P.—A sterile solution of the antitoxic substances obtained from the blood of healthy animals immunized against the toxins of Clostridium tetani, Clostridium perfringens and Clostridium septicum. Each package contains not less than 1,500 units of tetanus antitoxin and not less than 2,000 units of each of the other antitoxins. Complies with the requirements of the National Institute of Health.

ACTION AND USES: Used as a prophylactic against tetanus and gas gangrene when both of these are suspected contaminants of wounds. Its clinical value with respect to the gas gangrene component is unestablished and the doses provided by a single commercial package are considered inadequate.

DOSAGE: Parenteral, prophylactic, the contents of one or more packages (U. S. P.). This should be not less than 10,000 units of each of the constituent antitoxins, repeated at intervals of five to seven days depending on severity of the wound. Local infiltration of the wound may be advisable.

Tetanus Antitoxin, Antitoxinum Tetanicum, U. S. P. (Purified Antitetanic Serum, Concentrated Tetanus Antitoxin, Refined Tetanus Antitoxin, Antitetanic Globulins).—A sterile aqueous solution of antitoxic substances obtained from the blood serum or plasma of a healthy animal which has been immunized against tetanus antitoxin; containing

sodium chloride and a preservative and then filtered. It has a potency of not less than 400 antitoxic units in each cubic centimeter.

ACTION AND USES: Prophylactic agent in tetanus; also used for curative purposes.

DOSAGE: By parenteral injection: therapeutic, 20,000 units; prophylactic, 1,500 units (U. S. P.). The prophylactic dose should be not less than 10,000 units.

Tetanus Toxoid, Toxoidum Tetanicum, U. S. P.—A sterile solution of the products of growth of the tetanus bacillus (Clostridium tetani) so modified by special treatment as to have lost the ability to cause toxic effects in guinea pigs but retaining the property of inducing active immunity.

Tetanus toxoid complies with the requirements of the National Institute of Health of the United States Public Health Service.

Clear brownish yellow or slightly turbid liquid having a characteristic odor or an odor due to the presence of a preservative. Tetanus toxoid must not contain an excessive proportion of preservative (not more than 0.5 per cent phenol or 0.4 per cent cresol if either of these is used), and must be free from harmful substances detectable by animal inoculation.

ACTION, USES AND DOSAGE: It is used for the active immunity to tetanus in three doses of 1 cc. each, preferably subcutaneously at intervals of three weeks, reinforced by additional injections of 1 cc. at the time of injury or exposure, or in the absence of exposure at intervals of six months to one year.

Alum Precipitated Tetanus Toxoid, Toxoidum Tetanicum Alumen-praecipitatum, U. S. P.

Turbid white or slightly gray suspension prepared by adding a sterile aqueous solution of alum to tetanus toxoid, washing the resultant precipitate with isotonic sodium chloride solution and resuspending it in isotonic sodium chloride solution to which a suitable preservative may be added.

Alum precipitated tetanus toxoid shall be labeled as is required for tetanus toxoid, with the additional designation "*Alum Precipitated*" on the labels of the finished package.

It shall meet the requirements as given under tetanus toxoid with the exception of the requirement for antigenicity. It shall also meet the following requirements:

The human dose of tetanus toxoid, alum precipitated, when administered subcutaneously to guinea pigs weighing 500 Gm., shall produce at least 2 units of antitoxin per cubic centimeter of blood serum in not more than six weeks. At least four guinea pigs shall be used for this test, but the blood serum from all of the test animals may be pooled for the test for antitoxic content.

The finished product shall contain not more than 20 mg. of alum per cubic centimeter, the calculation being based on the total amount of alum added for precipitation.

ACTION AND USES: It is used for the production of active immunity to tetanus. Two subcutaneous injections of 0.5 cc. or 1cc. at intervals of three to four months with additional 1 cc. injections at intervals of not less than one year for those exposed to the disease and single injections at the time of injury or active exposure.

DOSAGE: Hypodermic, for active immunization, 1 cc., to be repeated at proper intervals (U. S. P.).

Tetracaine Hydrochloride, Tetracainae Hydrochloridum, U. S. P. (Amethocaine Hydrochloride, Pontocaine Hydrochloride).

Fine white, crystalline, odorless powder with a slightly bitter taste followed by a sense of numbness. Very soluble in water and soluble in alcohol.

ACTION AND USES: Local anesthetic for surface anesthesia in the eye, nose and throat and in spinal anesthesia, in lower concentrations than procaine.

Tetrachloroethylene, Tetrachloroaethylenum, U. S. P. (Perchloroethylene).

A clear, colorless, noninflammable liquid with a characteristic ethereal odor. Slowly decomposed by light and by various metals, if moisture is present. Practically insoluble in water and miscible with alcohol.

ACTION AND USES: Action resembles that of chloroform; used (with caution) in the treatment of hookworm infestation. No fats, oils or alcohol should be given at the same time, because they promote the absorption of the drug.

DOSAGE: 3 cc., (U. S. P.).

Tetrachloroethylene Capsules, Capsulae Tetrachloroaethyleni, U. S. P.—The usual sizes contain 0.2 cc., 1 cc. and 2.5 cc.

Theobroma Oil, Oleum Theobromatis, U. S. P. (Cocoa Butter, Cacao Butter).—A solid fixed oil.

Melts at body temperature.

ACTION AND USES: Used principally in suppositories; sometimes in emollient ointments and as a lubricant in massage.

Theobromine and Sodium Acetate, Theobromina et Sodii Acetas, U. S. P.—A hydrated mixture of sodium theobromine and sodium acetate in approximately molecular proportions. It yields about 60 per cent theobromine.

White, crystalline powder, which is odorless or practically odorless with a bitter taste. It is moderately hygroscopic, and on exposure

to air it gradually absorbs carbon dioxide with the liberation of free theobromine. Soluble in water (1 in 1.5); slightly soluble in alcohol. Even weak acids precipitate the theobromine from the aqueous solution.

ACTIONS AND USES: It is used as a diuretic having the advantage over theobromine of greater solubility and toleration by the stomach. It is less effective but more sustained than theophylline.

DOSAGE: 0.5 Gm. (U. S. P.).

Theobromine and Sodium Acetate Capsules, Capsulae Theobrominae et Sodii Acetatis, U. S. P.—The usual sizes contain 0.1 Gm. and 0.2 Gm.

DOSAGE: 0.5 Gm. theobromine and sodium acetate (U. S. P.).

Thiobromine and Sodium Salicylate, Theobromina et Sodii Salicylate, N. F. (Theobromine Sodio-Salicylate).—Sodium theobromine and sodium salicylate in approximately molecular proportions. Contains not less than 46.5 per cent theobromine and not less than 35 per cent salicylic acid.

White, odorless powder having a sweetish, saline and somewhat alkaline taste. Freely soluble in water (1 in 1), slightly soluble in alcohol. Incompatible with acids and has the other incompatibilities of salicylates.

ACTION AND USES: Practically identical with those of theobromine and sodium acetate.

DOSAGE: 1 Gm. (N. F.).

Theophylline, Theophyllina, U. S. P.—An isomer of theobromine.

White, odorless powder having a bitter taste. Slightly soluble in water (1 in 120) and sparingly soluble in alcohol (1 in 80).

ACTION AND USES: Has a diuretic action similar to that of theobromine, more powerful but said to be not so lasting.

DOSAGE: 0.2 Gm. (U. S. P.).

Theophylline Tablets, Tabellae Theophyllinae, U. S. P.—The usual sizes contain 0.1 Gm. and 0.2 Gm.

Theophylline and Sodium Acetate, Theophyllina et Sodii Acetas, U. S. P. (Theophylline with Sodium Acetate).—It contains about 60 per cent anhydrous theophylline.

A white, odorless powder with a bitter salty taste. Soluble in water (1 in 25) and insoluble in alcohol.

ACTION AND USES: The same as those of theophylline, but it has the advantage of being readily soluble.

DOSAGE: 0.2 Gm. (U. S. P.).

Theophylline and Sodium Acetate Tablets, Tabellae Theophyllinae et Sodii Acetatis, U. S. P.—The usual sizes contain 0.1 Gm. and 0.2 Gm.

Thiamine Hydrochloride, Thiaminae Hydrochloridum, U. S. P. (Thiamin Chloride, Vitamin B_1 Hydrochloride, Vitamin B_1, Aneurine Hydrochloride).

White, small crystals, or a crystalline powder, having a slight, characteristic odor. One gram thiamine hydrochloride is soluble in about 1 cc. water and in about 100 cc. alcohol at 25 C. It is soluble in glycerin.

ACTION AND USES: Thiamine hydrochloride is used when there is a deficiency of this substance in the diet. It is of value in beriberi; in anorexia of dietary origin, when the condition is due to a deficiency of thiamine hydrochloride in the diet, and in securing optimal growth in infants and children where the diet contains a sub-optimal amount, and where there are specific conditions which indicate interference with the proper assimilation of the vitamin when it is present in adequate amounts in the diet. It is of probable value in the treament of neuritis of pellagra and alcoholic neuritis. Any condition such as hyperthyroidism or vigorous muscular activity which induces a greatly augmented metabolism may increase the requirement for thiamine hydrochloride.

DOSAGE: 5 mg. (U. S. P.).

Thiamine Hydrochloride Injection, Injectio Thiaminae Hydrochloridi, U. S. P.—Sterile solution of thiamine hydrochloride in water for injection.

DOSAGE: 10 mg. thiamine hydrochloride (U. S. P.), usually available in ampuls containing 5, 10 and 50 mg. in 1 cc. and 0.25, 0.5, 1 and 1.5 Gm. in 10 cc. The official dose supplies about five times the recommended daily allowance for adult men.

Thiamine Hydrochloride Tablets, Tabellae Thiaminae Hydrochloridi, U. S. P. (Thiamin Chloride Tablets, Vitamin B_1 Tablets).—The usual sizes contain 3 mg., 5 mg. and 10 mg.

Thiopental Sodium, Thiopentalum Sodicum, U. S. P. (Thiopentanone Soluble).—Contains not less than 89 per cent of thiopental.

Yellowish white, hygroscopic powder with disagreeable odor. Soluble in water and in alcohol.

ACTION AND USES: A sulfur-substituted pentobarbital sodium compound qualitatively similar in action to the latter barbiturate, but of shorter duration and effective in smaller doses. It is used mainly by intravenous injection in freshly prepared buffered solutions as a quick-acting general anesthetic with an early recovery period but must be so administered for only short operative procedures and by experienced hands.

DOSAGE: 2 to 3 cc. of a 5 per cent solution of the sterilized drug is injected intravenously over a period of ten to fifteen seconds, and a period of thirty to thirty-five seconds is allowed to elapse before administering additional amounts that may be needed to produce relaxation.

Sterile Thiopental Sodium, Thiopentalum Sodicum Sterile, U. S. P. (Sterile Thiopentone Soluble).—A mixture of thiopental sodium with anhydrous sodium carbonate as a buffer, which meets the requirements of the *Sterility Test for Solids,* U. S. P.

ACTION AND USES: The sterilized equivalent of thiopental sodium for the preparation of solutions for injection.

DOSAGE: For anesthesia, to be determined by the physician according to the needs of the patient (U. S. P.); usually available in ampuls containing 0.5, 1.0 and 5.0 Gm. of sterilized drug and a suitable buffer.

Thyme, Thymus, N. F. (Garden Thyme).—Dried leaves and tops.

ACTION AND USES: Like other aromatic herbs it is used in the form of an infusion as a diaphoretic. The syrup closely resembles a nostrum for whooping cough.

DOSAGE: 4 Gm. (N. F.).

Thyme Fluidextract, Fluidextractum Thymi, N. F.—Thyme (100 per cent). Alcoholic content about 60 per cent.

DOSAGE: 4 cc. (N. F.).

Thyme Syrup, Syrupus Thymi, N. F.—Thyme fluidextract (20 per cent) in magnesium carbonate, sucrose and distilled water. Alcoholic content about 12 per cent.

Thyme Oil, Oleum Thymi, N. F.—A volatile oil.

Freely soluble in alcohol.

ACTION AND USES: Rubefacient and counterirritant; usually applied as a liniment, diluted with a fixed oil or liniment. Internally, carminative but now seldom used.

DOSAGE: 0.1 cc. (N. F.).

Thymol, Thymol, U. S. P.—A phenol.

Large, colorless crystals having a thymelike odor and a pungent, aromatic taste. Slightly soluble in water (1 in 1,000); freely soluble in alcohol (1 in 1).

ACTION AND USES: Antiseptic and anthelmintic. Used chiefly against the hookworm.

DOSAGE: Anthelmintic divided into three doses, 2 Gm. (U. S. P.). In the treatment of hookworm disease it should be given in as finely divided state as possible in doses of from 0.5 to 4 Gm. No fats, oils or alcohol should be given at the same time, because they promote the absorption of the drug.

The dosage may be regulated according to ages as follows: Up to 5 years of age, 0.5 Gm.; up to 10, 1 Gm.; up to 15, 1.5 Gm.; up to 20, 2 Gm.; above 20, 3 to 4 Gm.

Thymol Iodide, Thymolis Iodidum, N. F.—Chiefly dithymol-diiodide. Contains not less than 43 per cent iodine.

A reddish brown or reddish yellow, bulky powder with a very slight aromatic odor. Insoluble in water or glycerin; only slightly soluble in alcohol.

ACTION AND USES: Antiseptic; used chiefly as a dusting powder.

Thyroid, Thyroideum, U. S. P.—The thyroid glands of domesticated animals which are used for food by man, free from connective tissue and fat, dried and powdered. Contains about 0.2 per cent iodine in thyroid combination.

A yellowish powder with a slight characteristic odor and saline taste.

ACTION AND USES: Used in thyroid deficiency, especially in the condition known as cachexia thyropriva, cretinism and myxedema. It is sometimes used in obesity, but it may be harmful and should not be used without great caution. Overdosage induces hyperthyroidism.

DOSAGE: 60 mg. (U. S. P.).

Thyroid Tablets, Tabellae Thyroidei, U. S. P.—The usual sizes contain 15 mg., 30 mg., 60 mg. and 120 mg.

Thyroxin, Thyroxinum, U. S. P.—The active principle obtained from the thyroid gland or prepared synthetically; it contains not less than 64 per cent iodine.

White, needle-like, odorless, tasteless crystals; insoluble in water, in alcohol and in other organic solvents, but in the presence of mineral acids it dissolves in alcohol.

ACTION AND USES: It is used for the same purposes as thyroid, but the gland substance is usually preferred in clinical practice.

DOSAGE: 0.5 mg. (U. S. P.). Thyroxin should always be given in minimum effective doses, which should be determined for each patient. A small cretin requires from 0.2 to 0.4 mg. every day or two. A patient with high grade myxedema requires 1.5 to 2.0 mg. daily.

Titanium Dioxide, Titanii Dioxidum, N. F.—TiO_2.

A white, amorphous, tasteless, odorless powder. Dissolves in hot sulfuric acid and in hydrofluoric acid; insoluble in water and in dilute mineral acids.

ACTION AND USES: Similar to zinc oxide as an ingredient of dermatologic ointments or cosmetic articles, in which it serves principally as an inert, protective, white pigment. It is used in sun tan preparations as a screening or shading agent against erythemal ultraviolet rays, as represented by the official N. F. Sun Cream. When employed as the sole screening agent of sun tan ointments, it is used in concentrations of 15 to 25 per cent, but used alone it is inferior to zinc oxide and other agents for this purpose.

Tolu Balsam, Balsamum Tolutanum, U. S. P. (Tolu).

Brown or yellowish brown, plastic solid, transparent in thin layers and brittle when old, dried or exposed to cold. It has a pleasant aromatic odor resembling that of vanilla and a mild, aromatic taste. Soluble in alcohol, in chloroform and in ether; nearly insoluble in water and in purified benzine.

ACTION AND USES: Used chiefly in the form of the syrup, a pleasantly flavored vehicle.

Tolu Balsam Tincture, Tinctura Balsami Tolutani, U. S. P. (Syrup of Tolu.) Tolu balsam tincture (5 per cent) with magnesium carbonate, sucrose and distilled water.

DOSAGE: 10 cc.

Tolu Balsam Tincture, Tinctura Balsami, Tolutani, U. S. P. (Tolu Tincture).—Tolu balsam (20 per cent) in alcohol.

DOSAGE: 2 cc. (U. S. P.).

Totaquine, Totaquina, U. S. P.—A mixture of alkaloids from the bark of suitable species of Cinchona. It contains not less than 10 per cent of anhydrous quinine, a total of not less than 70 per cent and not more than 80 per cent of the crystallizable cinchona alkaloids.

Yellowish white to gray or pale brown powder which is odorless, has a bitter taste and is affected by light. Almost insoluble in water. It dissolves in warm alcohol and in chloroform, some insoluble residue usually remaining, and is partly soluble in ether.

ACTION AND USES: A mixture of the cinchona alkaloids including quinine, used orally as a cheap substitute for the latter in the treatment of malaria, over which it has no therapeutic advantage. It is prescribed in the same dosage as quinine salts.

DOSAGE: 0.6 Gm. (U. S. P.).

Totaquine Capsules, Capsulae Totaquinae, U. S. P.

DOSAGE: 0.6 Gm. totaquine (U. S. P.), usually available in capsules containing 0.12, 0.20 and 0.30 Gm.

Totaquine Tablets, Tabellae Totaquinae, U. S. P.

DOSAGE: 0.6 Gm. totaquine (U. S. P.), usually available in tablets containing 0.12, 0.20 and 0.30 Gm.

Tragacanth, Tragacantha, U. S. P. (Gum Tragacanth).—Mixed with 50 parts of distilled water, forms a smooth, nearly uniform, stiff, opalescent mucilage.

ACTION AND USES: Demulcent and emulsifier.

Tragacanth Glycerite, Glyceritum Tragacanthae, N. F.—Tragacanth (12.5 per cent) in glycerin and distilled water.

Tragacanth Mucilage, Mucilago Tragacanthae U. S. P.—Tragacanth (6 per cent) in glycerin (18 per cent), benzoic acid and distilled water.

Triasyn B, Triasyni B.

Triasyn B Capsules, Capsulae Triasyni B, U. S. P.—Each capsule contains thiamine hydrochloride 2 mg., riboflavin 3 mg. and nicotinamide 20 mg.

ACTION AND USES: For prophylaxis and treatment of conditions arising from the combined deficiency of these three constituent members of the vitamin B complex, each provided in proportion to the approximate recommended daily allowance for adult men.

DOSAGE: To be determined by the physician in accordance with the needs of the patient (U. S. P.). Each capsule supplies an approximately adequate daily allowance of the three vitamins for adult men.

Triasyn B Tablets, Tabellae Triasyni B, U. S. P.—Each tablet contains thiamine hydrochloride 2 mg., riboflavin 3 mg. and nicotinamide 20 mg.

ACTION AND USES: Same as for the official capsules.

DOSAGE: To be determined by the physician in accordance with the needs of the patient (U. S. P.). Each tablet supplies an approximately adequate daily allowance of the three vitamins for adult men.

Tribromoethanol, Tribromoaethanol, U. S. P. (Avertin, Tribromoethyl Alcohol).—Contains not less than 99 per cent of $C_2H_3Br_3O$.

White, crystalline powder with a slight aromatic odor and taste. It is unstable in air or light. Both aqueous and alcoholic solutions of tribromoethanol decompose on exposure to light. Soluble in water (1 in 35). Very soluble in amylene hydrate.

ACTION AND USES: Used for basal anesthesia by rectal administration of Tribromoethanol solution. Not to be employed for complete anesthesia. When employed for basal narcosis, necessary amount of inhalation anesthetic is diminished. Contraindications include liver or kidney dysfunction, severe cardiac disease and other conditions.

DOSAGE: Rectal (for each kilogram of body weight), 60 mg. (U. S. P.). *Caution: The total amount administered should not exceed 8 Gm. for women or 10 Gm. for men, regardless of weight* (U. S. P.).

Tribromoethanol Solution, Liquor Tribromoaethanolis, U. S. P. (Tribromoethyl Alcohol Solution, Bromethol).—A solution of tribromoethanol in amylene hydrate containing in each 100 cc. about 100 Gm. of $C_2H_3Br_3O$.

A clear, colorless liquid having a camphoraceous odor and a burning taste.

DOSAGE: For each kilogram of body weight, rectal, 0.06 cc. (U. S. P.). *Caution: The total amount administered should*

not exceed 8 cc. for women or 10 cc. for men, regardless of weight (U. S. P.).

Note: For use as an anesthetic, dilute the tribromoethanol solution with warm distilled water in the proportion of 2.5 cc. of solution to 100 cc. of the dilution. Mix 5 cc. of this dilution with 1 drop of Congo red test solution: it has the same color as a mixture of 5 cc. of distilled water and 1 drop of Congo red test solution (U. S. P.)

Trichloroacetic Acid, Acidum Trichloroaceticum, U. S. P.—$Cl_3C.COOH$.

Colorless, deliquescent crystals with a slight characteristic odor. Very soluble in water (1 in 0.1), soluble in alcohol and ether.

ACTION AND USES: Strong caustic, for the removal of warts and other skin blemishes. Used also as local hemostatic.

Trichloroethylene, Trichloroaethylenum, U. S. P.—Contains about 99 per cent of C_2HCl_3, the remainder consisting of alcohol.

Note: Ammonium carbonate may be added as a preservative not in excess of 20 mg. per hundred cubic centimeters. (U. S. P.)

Clear, colorless, mobile liquid. It has a characteristic odor resembling that of chloroform; it is slowly decomposed by light in the presence of moisture. It is not inflammable. It is practically insoluble in water; miscible with ether, alcohol and chloroform and dissolves most fixed and volatile oils.

ACTION AND USES: Used as a general anesthetic.

DOSAGE: Inhalation, 1 cc. (U. S. P.).

Triethanolamine, Triaethanolamina, U. S. P.—A mixture of alkanolamines, chiefly triethanolamine $N(C_2H_4OH)_3$, with various amounts of diethanolamine and monoethanolamine.

ACTION AND USES: Pharmaceutic aid used chiefly as an emulsifying agent in the preparation of ointments. It combines with fatty acids to form essentially neutral soaps with good detergent properties and may increase the penetration of oily substances. Sensitivity to the compound is rare.

Trinitrophenol, Trinitrophenol, N. F. (Picric Acid).

Pale, yellow, odorless crystals having an intensely bitter taste. Trinitrophenol stains the skin an intense persistent yellow. Sparingly soluble in water (1 in 80); soluble in alcohol (1 in 12). *Caution: Trinitrophenol explodes when heated rapidly or when subjected to percussion. For safety in transportation, trinitrophenol is usually mixed with from 10 to 20 per cent water. (U. S. P.).*

ACTION AND USES: For the dressing of burns and to render the skin sterile before operations. Internally it is highly toxic, producing nausea, vomiting, diarrhea and hepatitis, and it stains the skin and mucous membranes a yellow color, simulating jaundice. Poisoning has occurred from application to large areas of the skin.

Triticum, Triticum, N. F. (Couchgrass, Dog-grass).—Rhizome and roots.

ACTION AND USES: Formerly exploited as a diuretic in cystitis and irritable bladder. Now seldom employed.

Triticum Fluidextract, Fluidextractum Tritici, N. F. (Couchgrass Fluidextract).—Triticum (100 per cent). Alcoholic content about 18.5 per cent.

DOSAGE: 10 cc. (N. F.).

Tryparsamide, Tryparsamidum, U. S. P.—Arsenic about 25 per cent.

White, odorless powder, freely soluble in water (1 in 2) and slightly soluble in alcohol.

ACTION AND USES: Used in syphilis of the central nervous system in selected cases; in advanced cases it may hasten the progress of the disease. It is also used in trypanosomiasis. The toxic effects resemble those of other pentavalent arsenic compounds. The possibility of visual injury requires cautious use.

DOSAGE: *Caution!* Intravenous, 2 Gm. (U. S. P.).

Old Tuberculin, Tuberculinum Pristinum, U. S. P. (Tuberculin-Koch, Concentrated Tuberculin, Crude Tuberculin).—A sterile solution of the soluble products of growth of Mycobacterium tuberculosus, containing about 50 per cent glycerin.

ACTION AND USES: Used for the diagnosis of tuberculosis as a skin test by either intracutaneous injection (Mantoux), application to a scarified spot (von Pirquet), in ointment applied directly (Moro) or on absorbent material as a patch test (Vollmer). Its subcutaneous use as a therapeutic agent even in nonpulmonary tuberculosis has declined to the point of obsolescence and is capable of harm.

Purified Protein Derivative of Tuberculin, Tuberculini Derivativum Proteinicum Purificatum, U. S. P. (Tuberculin P. P. D.).—A sterile, soluble product of the growth of Mycobacterium tuberculosus prepared in a special liquid medium free from protein.

ACTION AND USES: Used for the performance of the Mantoux intracutaneous skin test for detection of allergic reaction to tuberculin. As with old tuberculin, positive results indicate previous tuberculous infection, not necessarily active, and the test should be used with caution, if at all, when the disease is suspected, to avoid possible harmful focal or general reactions. Negative results may be considered more conclusive, except insofar as these can occur in the presence of advanced or acute stages of the disease, when other evidence of infection should be present.

DOSAGE: Diagnostic 0.00002 mg. or 0.005 mg. (U. S. P.). The first dose should be tried and found to give negative results before administration of the second is indicated.

Turpentine, Terebinthina, N. F. (Gum Thus, Gum Turpentine).—A solid oleoresin obtained from pine.

ACTION AND USES: Rubefacient; without advantage over turpentine oil.

Turpentine Oil, Oleum Terebinthinae, U. S. P.—"Spirits of Turpentine").—A volatile oil obtained from the oleoresin of pine wood (turpentine).

Freely soluble in alcohol (1 in 5).

ACTION AND USES: Applied externally as rubefacient and counterirritant.

Turpentine Oil Emulsion, Emulsum Olei Terebinthinae, N. F.—Rectified turpentine oil (15 per cent) with acacia and distilled water.

DOSAGE: 2 cc. (N. F.).

Turpentine Liniment, Linimentum Terebinthinae, N. F. (Kentish Ointment).—Rosin cerate (65 per cent) in turpentine oil.

Acetic Turpentine Liniment, Linimentum Terebinthinae Aceticum, N. F. (Stoke's Liniment, St. John Long's Liniment).—Turpentine oil (40 per cent) and acetic acid (8 per cent) with lemon oil, egg and water.

Rectified Turpentine Oil, Oleum Terebinthinae Rectificatum, N. F.—Redistilled turpentine oil.

Note: Rectified turpentine oil is to be dispensed when turpentine oil is required for internal use. Oil that has become turbid must not be dispensed. (N. F.)

USES: Antiseptic, anthelmintic, diuretic and carminative. Used to relieve tympanites.

DOSAGE: 0.3 cc. (N. F.).

Typhoid Vaccine, Vaccinum Typhosum, U. S. P.—A sterile suspension of killed typhoid bacilli in isotonic sodium chloride solution or other suitable diluent. It contains at least 1,000,000,000 typhoid organisms in each 1 cc. of the vaccine.

ACTION AND USES: Used for establishing immunity to typhoid fever.

DOSAGE: Prophylactic, by hypodermic injection, 0.5 cc. and 1 cc., the latter dose to be repeated once (U. S. P.).

Typhoid and Paratyphoid Vaccines, Vaccina Typhosa et Paratyphosa, U. S. P.—A suspension in isotonic sodium chloride solution of killed typhoid bacilli, and killed paratyphoid bacilli types A and B. At least 1,000,000,000 typhoid organisms and at least 250,000,000 of each of the paratyphoid organisms is contained in each 1 cc. of the vaccine.

ACTION AND USES: Used for establishing immunity to typhoid and paratyphoid fevers. This preparation is used a great deal for foreign protein therapy.

DOSAGE: Prophylactic, by hypodermic injection, 0.5 cc. and 1 cc., the latter dose to be repeated once (U. S. P.). For foreign protein therapy one usually starts with a dose of 5 to 10 million organisms (0.0025 to 0.005 cc.) intravenously. This dose is usually obtained by accurate dilution of the official vaccine, in order that this number of organisms will be present in a measurable amount of solution. Injections may be given every three to five days. The common practice is to double the dose up to doses of as much as 500,000,000 to 1,000,000,000.

Epidemic Typhus Vaccine, Vacinum Typhusum Epidemicum, U. S. P. (Typhus Vaccine).—A sterile suspension of killed organisms of a strain or strains of epidemic typhus rickettsiae selected for antigenic efficiency. Complies with the requirements of the National Institute of Health.

ACTION AND USES: Used for active immunization as prophylaxis against epidemic typhus to reduce the severity and the incidence of the disease in times or places of epidemics.

DOSAGE: Hypodermic, for active immunization, 1 cc., to be repeated one or two times with seven to ten day intervals. (A booster dose every six months is recommended when real danger of infection prevails.) (U. S. P.).

Urea, Urea, U. S. P. (Carbamide).—(CH_4N_2O).

Colorless to white, prismatic crystals or a white, almost odorless crystalline powder with a cooling, saline taste. Soluble in water (1 in 1.5) and in alcohol (1 in 10).

ACTION AND USES: It is an active diuretic but not to be used where there is retention of nitrogen. It is used locally for removal of necrotic tissue. It may stimulate granulation and hasten healing.

DOSAGE: 8 Gm. (U. S. P.).

Urethane, Urethanum, U. S. P. (Ethyl Carbamate, U. S. P. XII).—$CO.OC_2H_5.NH_2$.

Colorless, odorless crystals or scales with a cooling, saline taste. Very soluble in water (1 in 5) and in alcohol (1 in 0.5). Soluble in glycerin (1 in 3).

ACTION AND USES: Hypnotic; the effect decreases with continued use; feeble diuretic.

DOSAGE: 1 Gm.

Uva Ursi, Uva Ursi, N. F. (Bearberry).—Dried leaf.

ACTION AND USES: Mild and slightly antiseptic diuretic used especially in vesical inflammation. Less effective than santal oil.

Uva Ursi Fluidextract, Fluidextractum Uvae Ursi, N. F.—Uva ursi (100 per cent). Alcoholic content about 39 per cent.

DOSAGE: 2 cc. (N. F.).

Valerian, Valeriana, N. F.—Rhizome and roots.

ACTION AND USES: Used as antispasmodic and nerve sedative in hysteria and other nervous excitations. Its influence is largely psychic, owing to its strong, persistent odor.

DOSAGE: 0.75 Gm. (N. F.).

Valerian Fluidextract, Fluidextractum Valerianae, N. F.—Valerian (100 per cent). Alcoholic content about 65 per cent.

DOSAGE: 1 cc. (N. F.).

Valerian Tincture, Tinctura Valerinae, N. F.—Valerian (20 per cent) in alcohol and water. Alcoholic content about 68 per cent.

DOSAGE: 4 cc. (N. F.).

Ammoniated Valerian Tincture, Tinctura Valerinae Ammoniata, N. F.—Valerian (20 per cent) in aromatic ammonia spirit. Alcoholic content about 63.5 per cent.

DOSAGE: 2 cc. (N. F.).

Vanilla, Vanilla, N. F. (Vanilla Bean).—Cured fruit.

ACTION AND USES: Flavoring.

Vanilla Tincture, Tinctura Vanillae, N. F.—Vanilla, sucrose, diluted alcohol and water. Alcoholic content about 40 per cent.

Vanillin, Vanillinum, U. S. P.—The odorous principle of vanilla, sometimes prepared synthetically.

Fine, white or nearly white, crystalline needles having the odor and taste of vanilla; soluble in glycerin (1 in about 20); sparingly soluble in water (1 in 100), freely soluble in alcohol.

ACTION AND USES: Used only as a flavoring.

Compound Vanillin Elixir, Elixir Vanillini Compositum, N. F.—Compound vanillin spirit (2 per cent), alcohol, glycerin, syrup, caramel and distilled water. Alcoholic content about 8 per cent.

Compound Vanillin Spirit, Spiritus Vanillini Compositus, N. F.—Vanillin, orange oil, cardamom oil, cinnamon oil and alcohol. Alcoholic content about 68 per cent.

Veratrum Viride, Veratrum Viride, N. F. (Green Hellebore, American Hellebore).—Rhizome and roots.

ACTION AND USES: Slows the heart and lowers blood pressure. The tincture has been recommended in eclampsia but is now little used.

DOSAGE: 0.1 Gm. (N. F.).

Veratrum Viride Tincture, Tinctura Verati Viridis, N. F.—Veratrum viride (10 per cent). Alcoholic content about 90 per cent.

DOSAGE: 1 cc. (N. F.).

Viburnum Opulus, Viburnum Opulus, N. F. (True Cramp Bark, High-bush Cranberry Bark).

ACTION AND USES: Slightly bitter; practically inert; was recommended as tonic, antispasmodic and alterative.

DOSAGE: 4 Gm. (N. F.).

Viburnum Prunifolium, Viburnum Prunifolium, N. F. (Blackhaw).—The dried bark.

ACTION AND USES: Has had some vogue as a uterine sedative in dysmenorrhea and habitual abortion. There is no evidence that it has any therapeutic action.

DOSAGE: 4 Gm. (N. F.).

Viburnum Prunifolium Elixir, Elixir Viburni Prunifolii, N. F. (Blackhaw Elixir).—Viburnum prunifolium fluidextract (12.5 per cent), compound cardamom tincture, glycerin, and aromatic elixir. Alcoholic content about 26.5 per cent.

DOSAGE: 4 cc. (N. F.).

Viburnum Prunifolium Fluidextract, Fluidextractum Viburni Prunifolii, N. F. (Blackhaw Fluidextract).—Viburnum prunifolium (100 per cent). Alcoholic content about 54 per cent.

DOSAGE: 4 cc. (N. F.).

Vinyl Ether, Aether Vinylicus, U. S. P. (Divinyl Oxide, Vinethene).—Contains about 96 per cent vinyl ether and about 4 per cent alcohol (dehydrated). It may contain 0.025 per cent of harmless preservative.

Clear liquid with characteristic odor. It is colorless or has a slight purple fluorescence of the preservative. Slightly soluble in water; miscible with alcohol.

Caution: Vinyl Ether to be used for anesthesia must be preserved in tight containers of not more than 200 cc. capacity and is not to be used if the original container has been opened longer than forty-eight hours.

ACTION AND USES: General anesthetic used by inhalation, preferably by open drop technic, for short anesthesias in dental and minor surgical procedures and as an induction agent for general anesthesia with other agents, particularly ethyl ether. Its greater rapidity of action as compared to the latter requires familiarity with the signs of anesthesia peculiar to vinyl ether to avoid a dangerous overdosage of this agent.

Water, Aqua, U. S. P.—Water (H_2O) conforming to the U. S. P. requirement and tests.

ACTION AND USES: Solvent, diluent, vehicle, diuretic. Properly prepared solutions are used as vehicles, solvents or diluents for substances to be administered parenterally. See water for injection.

Distilled Water, Aqua Destillata U. S. P.—Water obtained by distillation.

Sterile Distilled Water, Aqua Destillata Sterilisata, U. S. P.—Should be used within twenty-four hours after its preparation. *Caution: Sterile distilled water and distilled water are not to be used for parenteral administration or in preparations to be used parenterally. For such purpose, water for injection is to be used. (U. S. P.)*

Water for Injection, Aqua Pro Injectione, U. S. P.—Water for parenteral use which has been distilled and sterilized within twenty-four hours. It is distilled, sterilized and stored in sealed or other suitable sterile containers, so that it is free and remains free from pyrogens.

White Wax, Cera Alba, U. S. P. (Bleached Beeswax).—Yellow wax bleached.

ACTION AND USES: Used in the preparation of emollient ointments and to raise the melting point of mixtures of oils and fats.

Cerate, Ceratum, N. F. (Simple Cerate).—White wax (30 per cent) and benzoinated lard.

Yellow Wax, Cera Flava, U. S. P.—(Beeswax).

ACTION AND USES: Used in the making of plasters and of ointments in which the color is not objectionable.

Whisky, Spiritus Frumenti, U. S. P. (Whiskey)—Alcoholic content about 50 per cent by volume.

An amber colored fluid having a characteristic odor and taste and an acid reaction.

ACTION AND USES: Its action depends on the alcohol that it contains.

White Pine, Pinus Alba, N. F. (White Pine Bark).—Inner bark.

ACTION AND USES: Used as expectorant in proprietary cough syrups. Of doubtful value.

DOSAGE: 2 Gm. (N. F.).

Compound White Pine Syrup, Syrupus Pini Albae Compositus, N. F.—White pine and wild cherry (each 8.5 per cent), aralia (1 per cent), poplar bud (1 per cent), sanguinaria (0.8 per cent), sassafras (1 per cent) and chloroform (0.6 per cent) in glycerin, alcohol and sucrose colored with cudbear. Alcoholic content about 11 per cent.

DOSAGE: 4 cc. (N. F.).

Wool Fat, Adeps Lanae, U. S. P. (Anhydrous Lanolin, Refined Wool Fat.)—Purified wool fat, freed from water.

Insoluble in, but miscible with, about twice its weight of water; sparingly soluble in cold alcohol, more soluble in hot alcohol and freely soluble in ether and in chloroform.

ACTION AND USES: Base for ointments; because of its tenacious consistency, should be mixed with some other base.

Hydrous Wool Fat, Adeps Lanae Hydrosus, U. S. P. (Lanolin).—Wool fat with about 27 per cent of water.

USES: Used as ointment base; does not become rancid; twice its weight of water can be incorporated.

Dried Yeast, Saccharomyces Siccum, U. S. P. (Dry Yeast).—Consists of dry cells of any suitable strain of Saccharomyces Cerevisiae, Meyen (Fam. Saccharomycetaceae).—Contains 40 per cent of protein and each 1 Gm. contains the equivalent of thiamine hydrochloride 0.12 mg., riboflavin 0.04 mg. and nicotinic acid 0.25 mg.

ACTION AND USES: Yeast extract containing three members of the vitamin B complex used for the prophylaxis and

treatment of conditions arising from dietary deficiency of these components of vitamin B complex. The constituent vitamins are not present in quantities proportionate to the usual recommended daily allowances. Without fortification, impractical amounts are necessary to supply the entire dietary needs for these vitamins.

DOSAGE: To be determined by the physician in accordance with the needs of the patient (U. S. P.). Approximately 17 Gm. are required to furnish the recommended daily adult male allowance of thiamine and much more to supply corresponding allowances for riboflavin and nicotinic acid.

Dried Yeast Tablets, Tabellae Saccharomycitis Sicci, U. S. P.

DOSAGE: To be determined by the physician in accordance with the needs of the patient (U. S. P.); usually available in tablets containing 0.5 Gm. Approximately 34 such tablets are required to furnish the recommended daily adult male allowance of thiamine alone.

Yellow Fever Vaccine, Vaccinum Febris Flavae, U. S. P.—A living culture of an attenuated strain of yellow fever virus selected for high antigenic activity and safety. Packaged in the frozen dried state it may be rehydrated immediately before use. Complies with the requirements of the National Institute of Health.

Slightly dull, light orange colored flaky or crustlike dehydrated mass.

ACTION AND USES: Used for active immunization against yellow fever.

DOSAGE: Of the rehydrated and diluted vaccine, subcutaneous, for active immunization, 0.5 cc. (U. S. P.).

Zea, Zea, N. F. (Corn Silk).

ACTION AND USES: Probably valueless. Has been used in inflammatory conditions of the bladder.

DOSAGE: 4 Gm. (N. F.).

Zea Fluidextract, Fluidextractum Zeae, N. F. (Corn Silk Fluidextract). Zea (100 per cent). Alcoholic content about 30 per cent.

DOSAGE: 4 cc. (N. F.).

Zinc Acetate, Zinci Acetas N. F.—$Zn(C_2H_3O_2)_2 2H_2O$.

Laminar crystals having a faint vinegar-like odor and, in dilute solutions, an astringent metallic taste. Freely soluble in water (1 in 2.5) and soluble in alcohol (1 in 30).

ACTION AND USES: Used locally like zinc sulfate; somewhat less astringent.

Zinc Chloride, Zinci Chloridum, N. F.—$ZnCl_2$.

White or nearly white, granular powder, porcelain-like masses or molded pencils, odorless, very deliquescent and intensely caustic. Very soluble in water (1 in 0.5) and freely soluble in alcohol (1 in 1.5).

ACTION AND USES: Antiseptic, astringent and escharotic.

Zinc Iodide, Zinci Iodidum, N. F.—ZnI_2

White or nearly white powder; odorless, with a sweetish, metallic taste; deliquescent. Very soluble in water and freely soluble in alcohol and ether.

ACTION AND USES: Caustic and germicidal.

Zinc Oxide, Zinci Oxidum, U. S. P.—ZnO.

Fine, white or nearly white, odorless powder. Insoluble in water or in alcohol.

ACTION AND USES: Antiseptic and astringent, widely used either alone or in combination with other substances as a dusting powder and as a protective and sedative in ointments.

Zinc Compounds and Eugenol Cement, Caementum Zinci Compositionum et Eugenolis, N. F. (Zinc-Eugenol Cement).—Contains a powder consisting of zinc acetate (0.5 Gm.), zinc stearate (1.0 Gm.), zinc oxide (70.0 Gm.) and rosin (28.5 Gm.) incorporated with a liquid consisting of eugenol (85.0 cc.) and cottonseed oil (15.0 cc.). The cement is prepared by mixing 10 parts of the powder with 1 part of the liquid to a thick paste immediately before use.

Note: The amount of liquid may be varied to give any desired consistency. (N. F.)

ACTION AND USES: Used in dentistry.

Zinc Oxide Paste, Pasta Zinci Oxidi, N. F. (Lassar's Plain Zinc Paste).—Zinc oxide (25 per cent), starch and white petrolatum.

Zinc Oxide Hard Paste, Pasta Zinci Oxidi Dura, N. F. (Unna's Hard Zinc Paste).—Zinc oxide (25 per cent) and purified siliceous earth in benzoinated lard.

Zinc Oxide Soft Paste, Pasta Zinci Oxidi Mollis, N. F. (Unna's Soft Zinc Paste).—Zinc oxide (25 per cent), precipitated calcium carbonate, linseed oil, oleic acid and calcium hydroxide solution.

Zinc Oxide Paste with Salicylic Acid, Pasta Zinci Oxidi cum Acido Salicylico, N. F. (Lassar's Zinc Paste with Salicylic Acid).—Salicylic acid (2 per cent) in zinc oxide paste.

Zinc Oxide Ointment, Unguentum Zinci Oxidi, U. S. P.—(Zinc Ointment).—Zinc oxide (20 per cent) in wool fat and white ointment.

Medicinal Zinc Peroxide, Zinci Peroxidum Medicinale, U. S. P.—A mixture of zinc peroxide, zinc oxide and zinc hydroxide that represents not less than 45 per cent zinc peroxide.

ACTION AND USES: A metallic peroxide employed for the same purpose as hydrogen peroxide, over which it has the advantage of the slower evolution of oxygen; used in the form of a sterilized powder to make up a 40 per cent sterile aqueous creamy suspension for local application in the treatment of wounds, especially those infected by microaerophilic or anaerobic organisms.

DOSAGE: Enough of the creamy suspension should be applied to the surface of the wound to provide a layer

approximately 0.3 cc. thick. Dressings soaked in the suspension are then superimposed and covered to prevent drying. Such applications are usually changed every twenty-four hours.

Zinc Phenolsulfonate, Zinci Phenolsulfonas, N. F. (Zinc Sulfocarbolate).—The hydrated salt.

Colorless, odorless crystals or granules having an astringent, metallic taste. Freely soluble in water (1 in 1.6) and in alcohol (1 in 1.8).

ACTION AND USES: Similar to, but less active than, zinc sulfate, over which it has no advantage.

DOSAGE: 0.125 Gm. (N. F.).

Zinc Stearate, Zinci Stearas, U. S. P.—Compound of zinc with varying amounts of stearic acid and palmitic acid corresponding to about 14 per cent of ZnO.

Fine, bulky, white, tasteless powder having a faint characteristic odor. Insoluble in water or alcohol.

ACTION AND USES: Used chiefly as a protective dusting powder for the skin. It adheres readily and repels moisture. Liberal inhalation of the dust may produce fatal pneumonia.

Zinc Sulfate, Zinci Sulfas, U. S. P.—$ZnSO_4.7H_2O$.

Colorless, transparent crystals or granular powder, odorless and having an astringent, metallic taste. Very soluble in water (1 in 0.6) and freely soluble in glycerin (1 in 2.5); insoluble in alcohol.

ACTION AND USES: Astringent, styptic and emetic. Much used in eye washes and especially effective in conjunctivitis caused by Hemophilus duplex.

DOSAGE: 1 Gm., as as emetic. Locally, 0.1 to 1 per cent in collyria; 0.5 to 4 per cent in urethral injections formerly used for gonorrhea.

Compound Zinc Sulfate Powder, Pulvis Zinci Sulfatis Compositus, N. F.—Zinc sulfate (12.5 per cent), salicylic acid (0.5 per cent), phenol, eucalyptol, menthol and thymol (each 0.1 per cent) and boric acid.

USES: Needlessly complex antiseptic mixture.

ADDENDUM

TABLES OF METRIC AND APOTHECARIES' WEIGHTS AND MEASURES

METRIC MEASURES OF WEIGHTS

1 Milligram (1 mg.) = 0.001 gram.
1 Centigram = 0.01 gram.
1 Decigram = 0.1 gram.
1 Gram (1 Gm.) = (Weight of 1 cc. water at 4° C.)
1 Kilogram (1 Kg.) = 1000 grams.

METRIC FLUID MEASURES

1 Milliliter (1 cubic centimeter, 1 cc.) = 0.001 liter.
1 Liter (1000 cc.) = 1 cubic decimeter.

APOTHECARIES' WEIGHTS

20 Grains = 1 scruple (℈).
3 Scruples = 1 drachm (ʒ).
8 Drachms = 1 ounce (℥).
12 Ounces = 1 pound (℔).

APOTHECARIES' FLUID MEASURES

60 Minims = 1 fluidrachm (fʒ).
8 Fluidrachms = 1 fluidounce (fȝ).
16 Fluidounces = 1 pint (O).

EQUIVALENTS OF APOTHECARIES' WEIGHTS IN METRIC UNITS

1 Grain = 0.065 Gm.
1 Drachm = 3.888 Gm.
1 Ounce = 31.103 Gm.
1 Pound = 373.242 Gm.

EQUIVALENTS OF APOTHECARIES' FLUID MEASURES IN METRIC UNITS

1 Minim = 0.062 cc.
1 Fluidrachm = 3.696 cc.
1 Fluidounce = 29.573 cc.
1 Pint = 473.17 cc.

EQUIVALENTS OF METRIC WEIGHTS IN APOTHECARIES'

0.001 Gm. (1 milligram, 1 mg.) = 0.015 grain.
0.01 Gm. (1 centigram) = 0.154 grain.
0.1 Gm. (1 decigram) = 1.543 grains.
1 Gm. (1 gram) = 15.432 grains.
1000 Gm. (1 kilogram, 1 Kg.) = 2 pounds, 8 ounces, 72.4 grains.

EQUIVALENTS OF METRIC FLUID MEASURES IN APOTHECARIES'

1 cc. = 16.231 minims.
10 cc. = 2 fluidrachms, 42.311 minims.
100 cc. = 3 fluidounces, 3 fluidrachms, 3.11 minims.
1000 cc. (1 Liter) = 2 pints, 1 fluidounce, 6 fluidrachms, 31.1 minims.

METRIC AND APOTHECARIES' EQUIVALENTS (WEIGHTS)

Gm.	Grains	Grains	Gm.
1 =	15.432	1 =	0.065
2 =	30.865	2 =	0.130
3 =	46.297	3 =	0.194
4 =	61.729	4 =	0.259
5 =	77.162	5 =	0.324
6 =	92.594	6 =	0.389
7 =	108.026	7 =	0.453
8 =	123.459	8 =	0.518
9 =	138.891	9 =	0.582

METRIC AND APOTHECARIES' EQUIVALENTS (VOLUMES)

cc.	Minims	Minims	cc.
1 =	16.231	1 =	0.062
2 =	32.462	2 =	0.123
3 =	48.693	3 =	0.185
4 =	64.924	4 =	0.246
5 =	81.156	5 =	0.308
6 =	97.387	6 =	0.369
7 =	113.618	7 =	0.431
8 =	129.849	8 =	0.493
9 =	146.080	9 =	0.554

CENTIGRADE AND FAHRENHEIT THERMOMETRIC EQUIVALENTS

C.°	F.°	C.°	F.°
—40	—40	65	149
—30	—22	70	158
—20	— 4	75	167
—10	14	80	176
0	32	85	185
5	41	90	194
10	50	95	203
15	59	100	212
20	68	110	230
25	77	120	248
30	86	130	266
35	95	140	284
40	104	150	302
45	113	200	392
50	122	250	482
55	131	300	572
60	140	350	662

INDEX

In this index preference has been given to the English names of the various drugs.